

**COST-EFFECTIVENESS OF USAID'S REGIONAL SUPPORT OF
FAMILY PLANNING IN WEST AFRICA:
FINAL REPORT***

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LIST OF ACRONYMS

AFR/WA	USAID Bureau for Africa, West Africa Office
AID	Agency for International Development
CI	Côte d'Ivoire
CPR	Contraceptive Prevalence Rate
CRS	Creditor Reporting System
CYP	Couple years of protection
DAC	Development assistance countries
DHS	Demographic and Health Survey
FHA	Family Health and AIDS (West Africa regional health project, SFPS)
GDI	Gender development index
HYGEA	Cabinet d'études, Dakar, Senegal (Idrissa Diop, directeur)
IUD	Intrauterine device
JSI	John Snow, Incorporated
KfW	Kreditanstalt für Wiederaufbau (German development bank)
ODA	Official Development Assistance
OECD	Organization for Economic Cooperation for Development
OYB	Operating Year Budget
PHN	Population, Health and Nutrition
PSI	Population Services International
REDSO	Regional Development Services Office
SFPS	Santé Familiale et Prévention du SIDA (FHA in English)
UNDP	United Nations Development Program
UNFPA	United Nations Fund for Population Activities
USAID	United States Agency for International Development

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This study began in the early months of 1999 as a modest, rapid cost effectiveness study of the USAID/Family Health and AIDS Prevention (FHA) regional program in Abidjan and its consortium of U.S. and African partners, *Santé Familiale et Prévention du SIDA (SFPS)*. Reviews by USAID of preliminary findings prompted requests for larger database development and analyses and extended the work over eighteen months. The present product and conclusions--though solely the responsibility of the authors--depended heavily on assistance from colleagues at USAID, USAID contractors, development groups in Africa, and multilateral organizations in Paris, New York, and the Netherlands.

USAID's Bureau for Africa, West Africa Office (AFR/WA) actively facilitated this study, organized three briefings, and encouraged the thorough approach that unfolded—special thanks to George Thompson, Harry Lightfoot, and Rod Kite. AFR's Development Planning Office facilitated access to essential historical program and budget information—thanks to Thomas Williams, Paul Knepp, and Harry Dorcus. Access to AFR personnel and administrative records was made possible by AFR/AMS—thanks to Merle Mukai and John Winfield—and by M/B—thanks to Stephen Malinowski. Others provided valuable critiques and suggestions and helped validate expenditure methodologies—thanks to John Richter (M/B/Resource Analysis) for views on funding pipelines and attribution, and to Khadijat Mojidi, Hope Sukin, and Subhi Medhi (AFR/SD) for insisting that we include “Other Donors,” and to Scott Radloff, Sara Pacque-Margolis, Mark Rilling, and other Global Bureau, Population, Health and Nutrition (G/PHN) staff for facilitating data retrieval and perspectives on measures of prevalence of use of contraception and related issues. Thanks also to Barbara Sow (USAID/Senegal) and Judith Robb-McCord and George Tackie (USAID/FHA/Abidjan) for contextual information. This study, and perhaps the FHA program itself, exist in great measure due to the passionate vision and leadership of Souleymane Barry, first USAID/FHA Senior Advisor and Program Manager (now Team Leader, Johns Hopkins University CCP/DISH/Kampala).

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EXECUTIVE SUMMARY

Since inception 35 years ago, USAID has expended about US \$425 million in population and family planning assistance in West Africa, of which about \$250 million was spent over the past decade. Other donors began investing substantially in this sub-sector in the late 1980s, more than \$175 million over the decade. Comparative surveys show that West Africa (with about 260 million inhabitants) has the lowest levels of use of contraception of any large region in the world. The sub-region has become the focus of efforts to expand access to modern methods to help slow very rapid population growth and reduce high reproductive morbidity and mortality. To date, little analysis has examined the association between investment expenditure and prevalence of use. This study shows that in eight countries (about 100 million inhabitants) chosen for intensive analysis, levels of use are rising rapidly in recent years and that levels of USAID investment appear to be strongly associated with the increased levels of use. It also estimates probable impacts on use of modern contraception of a “natural experiment” begun by USAID in 1995 as a variation on its traditional program design and management.

During the early to mid-1990's many USAID missions were closed, several in West Africa. Instead of ending decades of U.S. support to family planning and reproductive health, however, an approach was created under which Burkina Faso, Cameroon, Côte d'Ivoire, and Togo were served by a consortium team of contractors employing predominantly African organizations and working from a common base in Abidjan. The consortium became jointly responsible for planning, implementing, and evaluating services in the related fields of family planning, prevention and control of sexually transmitted infections, and selected infant and child and maternal survival interventions. This new strategy was devised as a transition to full support by other donors, but program evaluations in 1998 showed that the approach was working so well that it was extended and lessons are being assessed, of which this study is a part.

This study evaluates the FHA program through an “interrupted time series” design with comparison sites. The evolution in the four study countries (both before and after mission closure) is compared with the pattern in four countries in which mission-based programs continued over the 1990s -- Ghana, Guinea, Mali, and Senegal. Prevalence of use of modern methods of contraception (also termed ‘modern contraception prevalence rates’--CPR) and ‘couple-years protection’ are the key indicators (dependent variables) studied in relation to independent variables: (1) USAID strategy (‘regional’ or ‘mission’), (2) funding levels, (3) country characteristics, and (4) year. The relationships are presented as USAID and other donor investments per woman-protected-year, and as regression coefficients for the relationship between dependent and independent variables.

The sub-regional, African-led approach exhibits superior performance per dollar invested, based on both descriptive and regression techniques. While CPR increased at roughly the same exponential levels, the average cost per woman-protected-year over the study period was \$30.19 for the mission-based countries and \$11.83 in the study group, nearly a 3 : 1 ratio. Further, regression results suggest that \$43 million more would have been required from 1996 through 1998 to achieve the same CPR effects had the mission programs continued in the FHA countries. The paper speculates on reasons the new strategy appears more effective in achieving greater utilization of family planning.

INTRODUCTION

U.S. overseas development assistance since the 1960's has been organized mainly through USAID missions staffed with U.S. employees resident in host countries. Attached to U.S. embassies, these missions operate through delegated authorizations and annual budgets, overseeing design and funding of multi-sectoral portfolios of bilateral assistance for sustainable development. If resources or priorities change so that a USAID mission is no longer needed or viable, or a military coup d'etat deposes legal authority, the country's entire USAID development assistance program is closed out in accordance with standing regulations and legislation. The prevailing conviction has been that only resident in-country development missions can best ensure design and accountability for expenditures and results within national frameworks. Mission fund allocations mainly support "bilateral" programs though--especially in the population and family planning sub-sector--missions may "buy in" to U.S.-based programs that are organized and usually "core-funded" by a USAID central or regional bureau.

USAID reorganization in the mid-1990's led to closure of 23 country missions and three regional offices between 1994 and 1996--eleven of them in sub-Saharan Africa, of which eight missions were in West and Central Africa. USAID's regional (REDSO) office in Abidjan, Côte d'Ivoire, which provided support services to the bilateral missions in West Africa (and to a bilateral program in Côte d'Ivoire from 1991-1996), also closed. In most of these countries U.S. development assistance swiftly phased out. In West Africa, however, USAID devised a program to continue sizable technical assistance and financing within the population and health sectors in Burkina Faso, Cameroon, Côte d'Ivoire, and Togo.

The support in these four countries was built on a unique regional approach based in Abidjan engaging a consortium of four U.S. agencies and depending predominantly on African management and technical assistance. The USAID program authorization was titled "Family Health and AIDS Prevention (FHA)," a small management unit was designated "USAID/FHA;" and the consortium was titled "*Santé Familial et Prévention du SIDA (SFPS)*." A USAID management appraisal in 1998 recommended that *SFPS* assess the cost effectiveness of the program. To encourage independence of views, *SFPS* engaged Brandeis University's Schneider Institute for Health Policy to complete this first study.

METHODS

The basic approach is an "interrupted time series" design with comparison sites. The study compares performance in the four countries before and after launch of FHA and a comparison set of West African countries in which mission-based programs had continued over the decade of the 1990s,. For the latter, Ghana, Guinea, Mali, and Senegal were chosen since comparable data could be acquired, they have similar geographic and ecologic ranges, and they collectively comprise nearly identical population aggregates. The study analyzes family planning results in relation to USAID management structure (regional or mission), controlling for resources, country characteristics, and year.

Input data base

Every effort was made to compile a “complete cost analysis” for family planning activities. Thus, funds from all USAID sources were estimated: (1) USAID Global Bureau expenditure records; (2) Africa Bureau attributions in Program Year Summaries; and (3) field personnel costs, and mission operating expenditures attributable to family planning. Estimates of funding from other donors for family planning from UNFPA and OECD databases. Over 1989-1998 for these eight countries, these funds totaled US \$142 million for Africa Bureau attributions, \$106 million for USAID Global Bureau, \$19 million for field personnel and mission operating costs, and \$95 million from non-USAID sources--a grand total of US \$362 million.

Following its field-oriented mission structure, USAID programs and monitors funds for long-term activities like population, agriculture, economic reform, and environment mainly through regional bureaus that manage the missions. Accordingly, Bureau for Africa Annual Program Summaries of operating year budget (OYB) record country-level obligations (akin to reservations or commitments of funds). These are compiled after the end of each fiscal year and reported to Congress in compliance with legislation. The figures are fairly rigorously coded by appropriation earmark and/or development objective (e.g., population, child survival, primary education). For the period 1986 through 1992, we used the Bureau for Africa expenditures reported to the OECD. These data were validated against those obtained directly from USAID in 1993, and were found to agree quite closely.

Annual expenditures, however, is a much more desirable indicator for cost effectiveness analysis of actual investment or application of agreements and obligations. These estimates were not available in a standardized way over most-recent study years. A method, however, was devised to permit use of USAID and other donor obligation and commitment data to simulate or impute expenditures using typical pipeline performance and disbursement policies, as shown in Annex D. Pipeline patterns changed over time and USAID differed from other donors and these are reflected in the expenditure estimates. The result is the main series shown in Annex A, Table A1, Column 4.

The USAID Global Bureau funds many activities through contracts and grants to Cooperating Agencies based in the United States and receives its own Operating Year Budgets (OYB) for programs that can operate worldwide. The budget of the Global Bureau is separate from Operating Year Budgets allocated specifically to the Africa Bureau OYB. Totaling \$111 million from 1988 through 1998 in these eight countries, this “central funding” from the Global Bureau is a very substantial portion of total USAID investments in the population sector (more than in any other sector in which USAID is involved). These activities usually entail U.S.-based technical assistance including information systems, analyses, policy work, operations and applied bio-medical research, some commodities, and sometimes field operations through grantees. Funding data for these, however, are not coded by country-level obligations but rather through the aggregation of individual country and project-level *expenditures* by U.S. contractors and grantees. This was another reason for the “expenditurization” of OYB data described above.

These expenditure estimates were drawn directly from a comprehensive database maintained by John Snow, Inc. since 1988, based on quarterly contractor reporting on all expenditures of

“population”-appropriated funds by country, period, type of activity or service, type of institution, and other characteristics. A precise estimate of error of these estimates is not available, but the data are judged by USAID as highly indicative characterizations of Global Bureau or “central” funding; no incentives or disincentives in data collection or reporting levels were found that likely would systematically bias the numbers. This is a unique database within the USAID financial management system and has not often been incorporated into larger analyses such as the present study. Where these “central” expenditures were clearly linked to a country (85% of the funds), the figures were used directly. For amounts coded as “Multi-Africa” expenditures were attributed by population ratios of the countries concerned. The result is the series shown in Annex A, Table A1, Col 3.

The Global Bureau also provides some sustained support to international non-governmental organizations, such as the International Parenthood Foundation (IPPF). Data on funds committed are available for several of these recipients. . However, since comparable pipeline or expenditure data to allocate this support by country and year were not available this study does not include these organizations. The scale of U.S. funding through these is small compared to funding through the Africa Bureau and the centrally-funded U.S. cooperating agencies, and no reason was found to suggest that these international NGOs so far play a big role in financing or impacting programs in this sub-region though this could change in the coming decade.

Information on USAID Operating Expenses (OE) expenditures was obtained from USAID Bureau for Management and Bureau for Africa Office of Administration Management and Staff, Washington, DC. Estimates are based on the numbers of US Direct Hire staff and Foreign Service Nationals working in the Population, Health and Nutrition (PHN) programs and the average cost to USAID per staff member in each category (compensation, benefits and allowances for the staff member and dependents) for the years in question. The portion of PHN OE expenditures attributable specifically to family planning was estimated using the ratio of population OYB to total PHN OYB in each country.

Mission operating expenditures (e.g., security, rent, vehicle motor pool, communications, etc.) were based on detailed data for 1990 and 1994. These expenditures equaled 55% of mission personnel costs. We assumed that this ratio was constant across the years of our study (i.e., that mission operating expenses and personnel costs rose at the same rates) and across objects of USAID assistance. Thus, we estimated the mission operating expenditures attributable to family planning in each year as 55% of the estimated family planning personnel costs in that year. For the FHA mission in Abidjan, actual quantities for the years 1995-1999 were used directly.

Though USAID has provided the main external finance for family planning in these countries for many years, country and temporal variation in other donor investments quite possibly could confound inference about effects. The original task was to appraise co-variation of impact indicators with U.S. assistance levels and management models but as preliminary findings were shared the study team was urged to include non-US donor funding. This larger scope turned out to be an important contribution to the study. The best database amenable to construction of comparable interpolated expenditure estimates is that maintained by the Organization for Economic Cooperation for Development (OECD) in its project-level Creditor Reporting System (CRS). The OECD data in the case of the U.S. was found to generally include the project-level

obligations found in the Bureau for Africa Annual Program Summaries, but did not include Global Bureau funds (see above on Global OYB). Annex B shows comparative, “other donor” pipeline estimates and estimated completeness of reporting by year and donor. As in the case of USAID/AFR OYBs, it was possible to interpolate expenditures and create a standardized series, as shown in Annex A, Table A1, Col 7.

We also examined the UNFPA database which includes reported commitments from multi-lateral and NGO sources not captured in the OECD database on bilateral funding. However, the UNFPA data were incomplete for the late 1990’s. We were informed that USAID and other bilateral donor funding was large in comparison to multi-lateral and NGO funding. We concluded that the OECD data, which include World Bank and Africa Development Bank, best represent the complete cost analysis.

There was considerable variation in the year-to-year Africa Bureau OYB *obligations* for fertility programs across the eight countries though it was confirmed by missions and NGOs that actual expenditures are quite even of the years. Under USAID’s multi-year budgeting system, few funds obligated in a given year are expended in that year, but rather in two to four succeeding years (“Pipeline Effect”). Over the 1990s, typical rates of expenditure under USAID grants (“expenditure” here includes accruals and is not identical to “disbursements” which are somewhat slower) were said by Agency budget and program officials to have become gradually shortened from typically 4 years at the beginning of the decade to perhaps two years at the end of the decade (at least, this is the model toward which management explicitly aimed). In order to estimate annual expenditures we developed an “imputed expenditures” model to realistically approximate and to smooth the amounts budgeted for fertility programs over the course of the decade (see Annex D).

Output data

The major outcome measure or indicator of family planning was the prevalence of use of modern methods of contraception—the percentage of women of reproductive age using a modern method at the time of interview—here referred to as the “contraceptive prevalence rate” (CPR). Modern methods include sterilization, intrauterine devices (IUDs), oral contraception (pills), implants, and injections. Rhythm, abstinence, withdrawal, and traditional methods were not included. This study concentrated on family planning and prevalence of use of modern contraception because USAID has had acknowledged leadership in this sub-sector for many years in West Africa as elsewhere, and because other outcome measures in child survival and prevention and control of HIV do not have indicators and measures of comparable validity and reliability to permit sensitive statistical inference nor comparable duration and precision of funding attribution.

The dependent variable, CPR, was calculated starting with three to four point estimates from the Demographic and Health Surveys (DHS) and from earlier (1980-1981) World Fertility Surveys in each country. As these population-based surveys are expensive, they are performed only periodically – on average about every four years in the countries in our study in recent years.

While program data exist from health facilities indicating the number of reported acceptors, these data were found not to be sufficiently complete nor representative to use as an outcome measure.

A method was thus needed to interpolate between years of national surveys. This began by studying CPR estimates in each country and testing for best fits with standard spreadsheet trend lines. These revealed that seven of the eight countries were best fit by exponential curves (only Burkina Faso showed a linear best fit); three were almost perfectly fit by the exponential curve. The exponential curves also projected low CPR (y) values asymptotic with time going backwards, while linear trends showed y values below zero in the early 1980's. On the other hand, exponential curves can only be of limited duration before rapidly exceeding any realistic upper limit. Study revealed that very good interpolation could be achieved by fitting a logistic function to each country's data points. The logistic function has been widely used to characterize the diffusion of innovations ranging from classic studies of hybrid corn (Griliches, 1957) to new pharmaceuticals (Coleman, Katz, and Menzel, 1996), new medical technologies (Gordon and Fisher, 1975), and adoption of many modern technologies (Federal Reserve Bank of Dallas, 1998).

Three main rationales underlie the choice of logistic function. The first is a differential equation relating to the diffusion of new technologies. In a 1998 conference, the US National Academy of Sciences indicated that the diffusion approach would be a useful way to examine contraception use. Nevertheless, neither the authors nor a leading authority on the diffusion of innovations, Prof. Everett Rogers, are aware of previous applications of the logistic curve to CPR (Rogers, Everett, personal communication to G. Merritt, July 18, 2000). Under the diffusion approach, we hypothesize that the number of new adopters in any time period is proportional to both the number of existing users (who can spread information to their acquaintances) and the number of non-users who are potentially eligible to use the innovation. If the proportion of the population using the innovation is denoted by p , and 85% of the entire population is potentially eligible, then the number of new users is proportional to the product $p(0.85-p)$. Solving this differential equation gives the logistic function.

The second rationale is that if the time at which a goal were achieved were a normally distributed random variable, then p would be a cumulative normal function of time. The logistic function is similar to the cumulative normal distribution, but mathematically more tractable.

The third rationale is that the logistic function has become the most widely used statistical technique for analyzing probabilistic behavior. It is relatively easy to compute and is a standard component of widely used statistical packages, such as SPSS.

In marketing research, analysts often use the Bass curve, which represents a generalization of the logistic curve (Bass, 1969; Bass and Leone, 1983; Bass curve web sites, 2000). In the Bass curve, derived from a differential or difference equation, the rate of new adopters depends on both the proportion of users and the proportion potentially eligible, but the effects of these two parameters (internal and external factors) is not symmetrical.

The logistic function of CPR (expressed in percentage points) was defined using the formula (1) below:

$$\text{Logistic CPR} = \ln [(CPR/85)/.85-(CPR/100)]. \quad (1)$$

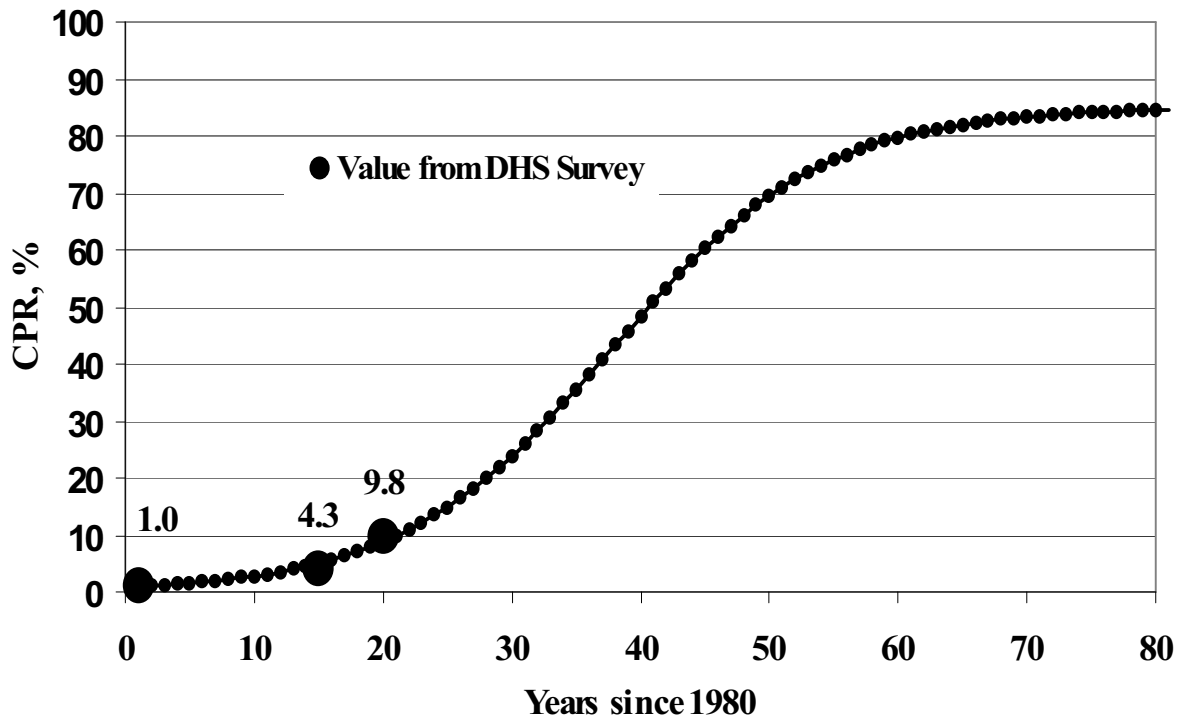
The ceiling for CPR among these countries was assumed to be 85 percent (i.e., 0.85) because this was the highest CPR noted among the values published by UNDP for low or middle income countries. Then, for each country, a regression line was calculated for the logistic of CPR versus year, and from this line interpolated values for each of the years of interest were generated (“fitted logistic of CPR”).

Based on the usefulness of the logistic function in modeling other use rates (Griliches, 1957), the logistic function of CPR was assumed to bear a linear relationship with year, as shown in equation (2).

$$\text{Logistic CPR} = a + bt. \quad (2)$$

CPR data for most countries fit this family of curves rather closely. Figure 1 shows this fit for the Côte d’Ivoire, a typical example, with three observations. The linear regression line for the logistic of CPR versus year then allowed us to generate interpolated and smoothed values for the logistic of CPR for all years of interest. While Figure 1 shows that CPR would eventually (after 80 years) approach the ceiling of 85%, this study used fitted values of CPR only for the study years of 1989 through 1997. For these years, interpolated values of CPR remain close to those of the actual data. The gain in precision is slight but possibly important.

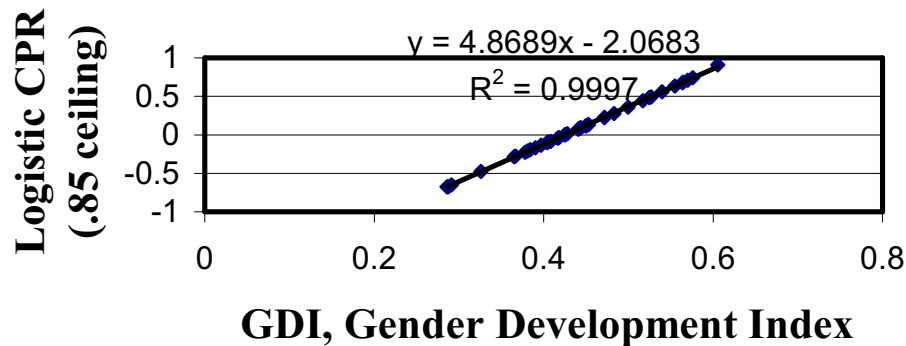
Figure 1. Cote d'Ivoire: Display of logistic curve



Adjustment for social development

While programs run by governments and donors can help stimulate demand for family planning and make products and services available, many other factors in attitudes and socio-economic development are clearly important. In a country-level study such as this, the data do not allow each of the factors that may affect family planning to be examined separately. Rather, a single, global index is needed. In this study, this index was the Gender Development Index (GDI), likely the best single predictor of national rates of family planning use

Figure 2. Logistic CPR vs. GDI (Lower half of countries, CPR 60.6% or below)



The Gender Development Index has been tracked by UNDP since 1995 and uses the same variables as the Human Development Index (UNDP, 1995; UNDP, 1999). GDI is a composite index reflecting the disparity between men and women in income, life expectancy and educational attainment. We chose to adjust our data using GDI because the index reflects the main factors known to be related to use of contraception, because the index is available across many countries, and because we were limited to only one adjustment factor by the small number of Demographic and Health Survey (DHS) data points for CPR. GDI correlates very strongly with prevalence of use of contraception and the relation is almost perfectly linear, especially for the lower 50% of countries as rated by the Human Development Index (See Figure 2).

The logistic of CPR was adjusted by GDI, by first calculating the population-weighted average GDI for the 8 countries in question, and then calculating the “delta GDI” or difference for each country between its GDI and the population-weighted GDI (see Table 1) Next, the researchers calculated the slope of the linear relation between GDI and the logistic of the contraceptive prevalence rate for 73 countries (the lower 50% of countries rated by the human development index as published by UNDP for the year 1997) The coefficient was multiplied by the delta GDI, and this product was added to the fitted logistic of CPR giving an “adjusted, fitted logistic of CPR”. Finally, the investigators inverted this logistic function to give the estimated value of CPR itself by country and year.

Table 1. GDI Adjustments in Study Countries

Country	GDI	Delta GDI
Burkina Faso	0.29	0.14
Mali	0.37	0.07
Guinea	0.38	0.05
Cote d'Ivoire	0.40	0.03
Senegal	0.42	0.02
Togo	0.45	-0.01
Cameroon	0.53	-0.09
Ghana	0.54	-0.10
Weighted Average	0.44	0.00

Another output measure, USAID supplied family planning commodities and clinical services, was expressed in Couple Years of Protection (CYP). The quantities of each product were divided by conversion factors established by USAID showing the quantity of each product needed to obtain one year of protection from pregnancy (including wastage). These quantities were taken directly from the NEWVERN Logistics database (named in honor of the original compiler of this data, Vern Peterson) maintained by John Snow, Incorporated, counting overseas shipments of USAID funded contraceptive products.

Data analysis

Standard multiple regression techniques were used to test the relationships between the dependent variable (adjusted logistic CPR) in each country and year and relevant independent variables. The data set was a “pooled time series cross section” in which each of the 80 observations represented one of the 8 countries for one of the 10 study years (1989 through 1998, inclusive). Our choice of independent variables was governed by theoretical relevance and parsimony. We thus included three independent variables--year of observation, status as study country (FHA or control), and either an absolute or a relative specification of USAID funding for family planning. The absolute specification was the dollar amount of USAID support for fertility programs per woman aged 15 through 44 years, while the relative specification was the USAID proportion in relation to all donor support for fertility programs in that year in the country.

RESULTS

Descriptive results

The relationships between USAID inputs and outcomes are presented in two ways. First, the calculated USAID family planning cost per woman-protected-year is analyzed, and second, regression coefficients for the relationship between CPR and the independent variables are presented.

Figure 3. Comparison between 4 FHA and 4 mission countries

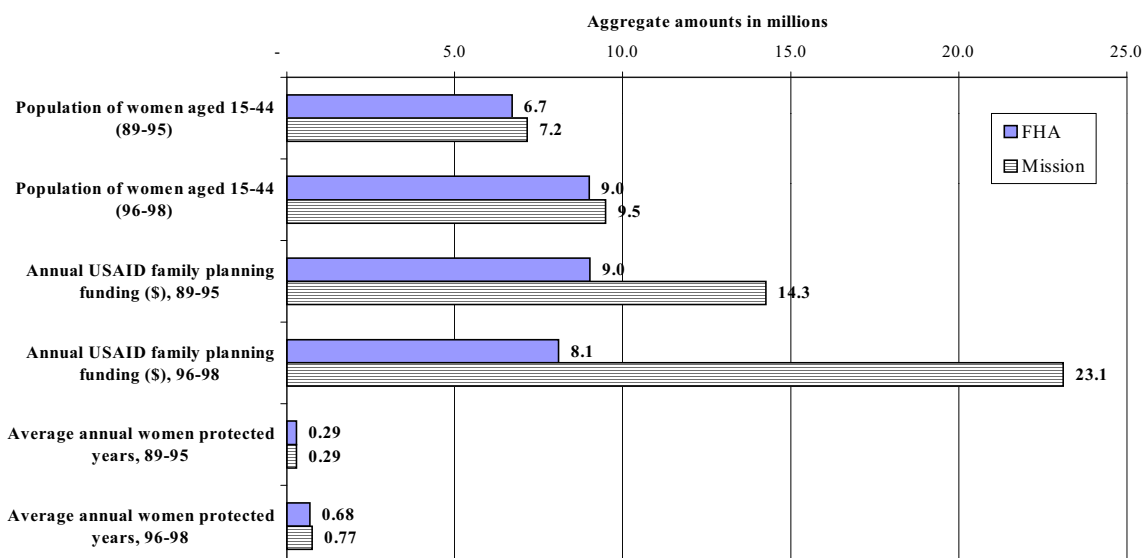
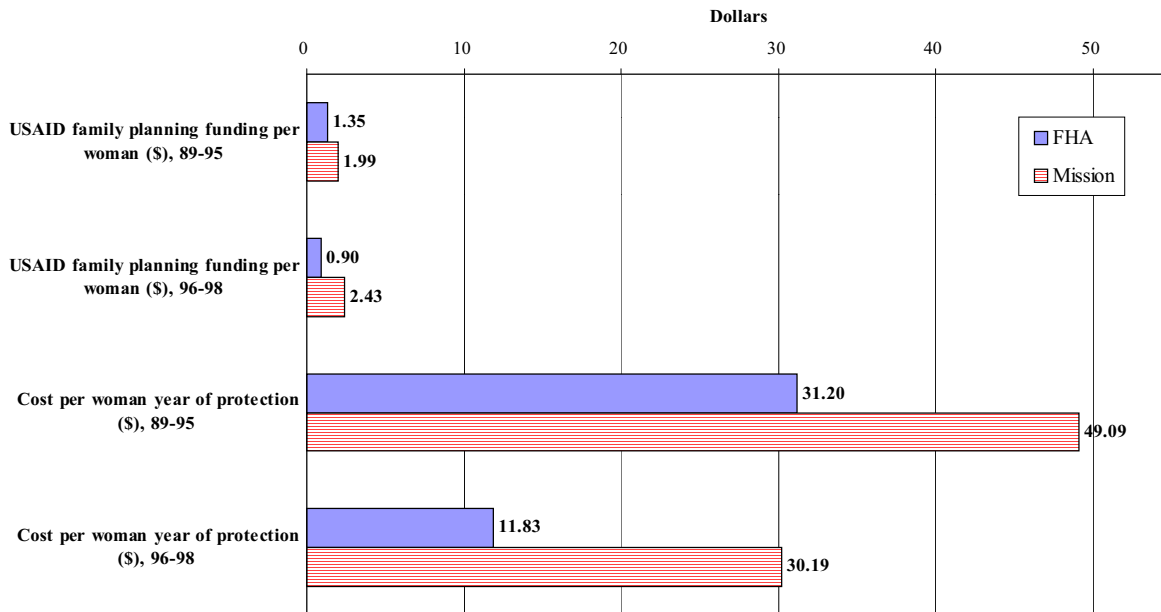


Figure 3 shows the aggregate inputs and outputs. In order to estimate the number of “woman-protected years,” the fitted, adjusted CPR was multiplied by the number of women aged 15-44 for each country and year. Costs were calculated as total USAID family planning input for each year. FHA countries were compared with mission-based countries for the years before and after the transition to the regionalization strategy. The results in Figure 4 show that the mission-based countries expended substantially more per woman-protected year than did the FHA countries, both before and after the transition. The transition to the regionalization strategy in the FHA countries was associated with a substantial reduction in the cost per woman protected year. In all years the cost in dollars of USAID input per woman-protected-year was higher in the four mission-based countries than in the four FHA countries. The average cost per woman-protected-year over the 3-year period (1996-98) was \$30.19 for the mission-based countries as contrasted to only \$11.83 for the FHA countries. By this simple measure, the FHA approach was three times as cost-effective as the mission based approach.

Figure 4. Per Year Results



External support from non-USAID sources rose somewhat in the FHA countries (compared to those with missions) after USAID mission closures in the FHA countries began. This is documented in the FHA Results Report 2000 and is characterized as “mobilizing other donors”. This has been one of the main objectives of the FHA since its inception and received a lot of attention from USAID and Department of State representatives in the countries where the missions closed.

Regression analyses

Our regression analyses used three independent variables (1) year, (2) status as FHA country vs. mission-base country and (3) USAID family planning funding in per woman or relative terms. The dependent variable was the fitted, adjusted logistic of CPR. As shown in Table 2, CPR in the first regression showed very strong positive correlation with year (coefficient of 0.108 with $P < .001$), a strong positive correlation with total USAID family planning dollars per woman 15-44 (coefficient of 0.143 and $P = 0.013$) and a strong trend toward positive correlation with FHA status (coefficient = 0.259 and $P = 0.100$).

Table 2. Regression coefficients including only USAID absolute funding*

Independent Variables	Coefficients	Standard	t Stat	P-value
		Error		
Intercept	-219.53	40.162	-5.47	<0.0001
Year	0.109	0.020	5.38	<0.0001
FHA status	0.260	0.156	1.66	<0.10
Est. Total USAID FP\$ per woman 15-44	0.144	0.057	2.53	<0.05

*Adjusted R-squared is 0.536, F(3,76) is 31.4, p<.0001. The dependent variable was the fitted, adjusted logistic of CPR.

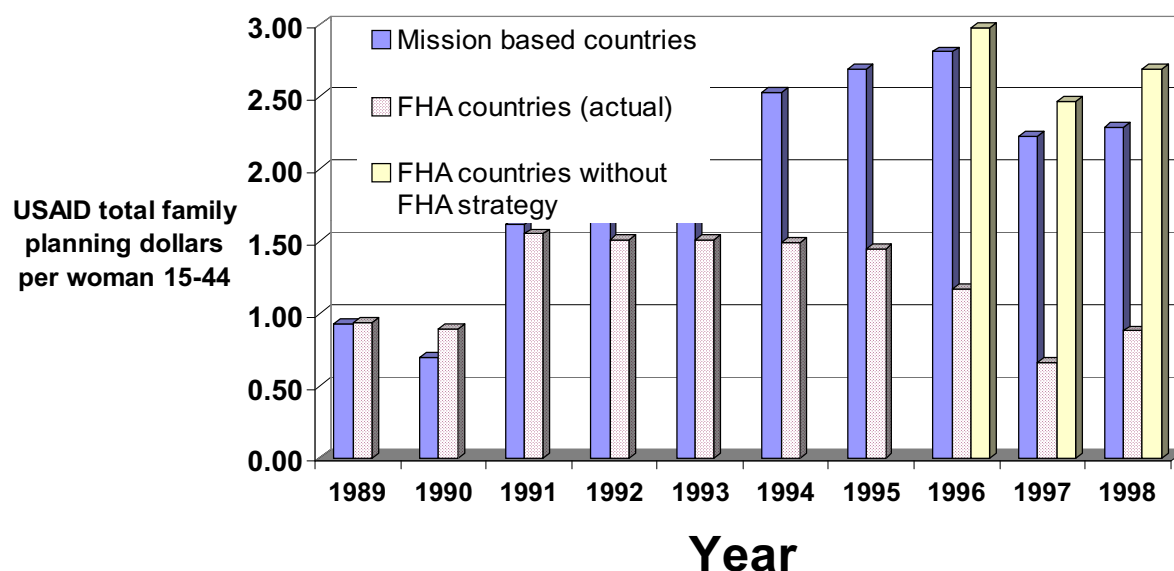
Under the second specification, the results in Table 3 showed a strong positive correlation with year (coefficient of 0.145 with $P < 0.001$), a strong positive correlation with percentage of all donor family planning assistance contributed by USAID (coefficient of 0.870 and $P < 0.001$) as well as a strong positive correlation with FHA status (coefficient of 0.352 and $P = 0.022$). An alternative specification (Annex E) sought to examine the impact of including both total donor and USAID funding in absolute terms. Because of multicollinearity among year, all donor, and USAID funding, however, the results were not stable.

Table 3. Regression results with all donor and % USAID inputs*

Independent Variables	Coefficients	Standard	t Stat	P-value
		Error		
Intercept	-293.598	33.623	-8.73	<0.0001
Year	0.145	0.017	8.63	<0.0001
FHA status	0.353	0.151	2.33	<0.05
USAID FP as proportion of all donor FP \$	0.870	0.230	3.78	<.001

*Adjusted R² is 0.577, F(3,76) is 36.9, p<.0001. The dependent variable was the fitted, adjusted logistic of CPR.

Figure 5. Estimated USAID total family planning expenditures for equivalent prevalence without FHA strategy



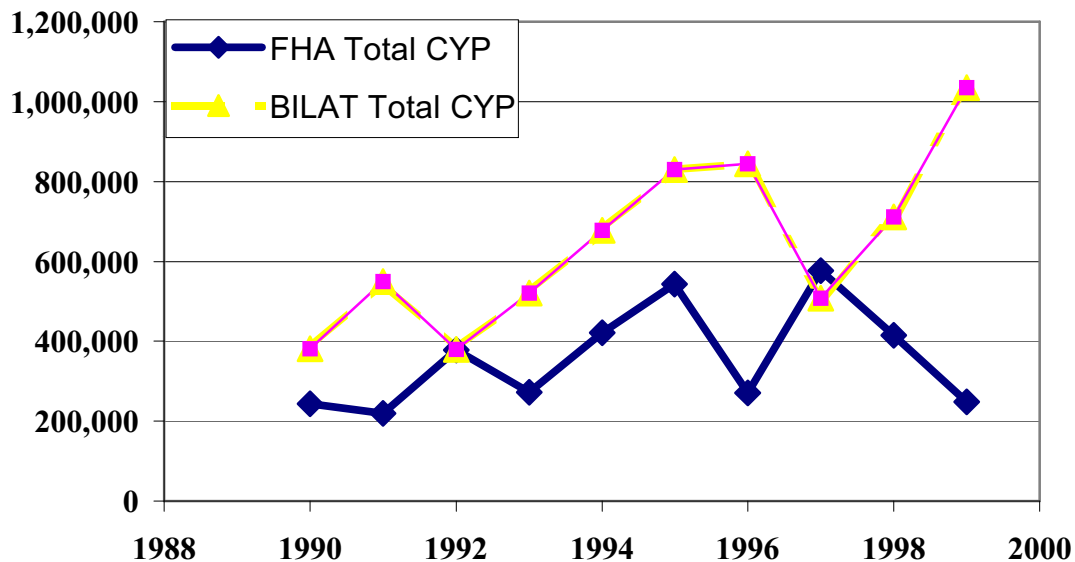
Cost comparison

A further analysis was done to estimate what it would have cost to achieve the same levels of CPR without the FHA regionalization strategy. Coefficients from the first regression analysis above were used to estimate the total USAID family planning expenditures per woman 15-44 which would have been necessary to achieve the same level of CPR. The results are shown in Figure 5. Across the four FHA countries, in order to achieve the same levels of CPR, it would have required the additional expenditure of \$18.1 million in 1996; \$10.5 million in 1997; and \$14.4 million in 1998.

Couple-years of protection (CYP)

In the period 1990-1995 the number of CYP delivered by USAID rose steadily in both the group of four FHA countries and the group of four mission-based comparison countries. After the transition to the regionalization strategy from 1997-1998, the number of CYP continued to rise in the mission-based countries, but fell sharply for the FHA group (see Figure 6).

Figure 6. Comparison in Couple Years of Protection between Mission Based and FHA Countries



Despite this difference in CYP trends, the estimated CPR increased in both groups of countries. It has been an explicit priority in the FHA region to encourage other donors to make larger contributions as the USAID presence has diminished. In fact, in some countries such as Côte d'Ivoire, the German aid organization, KfW, has donated large numbers of condoms since the transition (and there may be other examples that we were not able to document). Comparing Côte d'Ivoire as an example of the regionalized countries with Senegal as an example of the mission-based countries, we found that while estimated CPR has continued to rise in both countries, the USAID supplied total CYP as well as the CYP related to condoms only has dropped off sharply in CI but not in Senegal. We speculate that this could be explained by the FHA effort to encourage other donors, such as KfW, to become more active in family planning.

DISCUSSION

In the mid-1990's USAID closed 11 missions in sub-Saharan Africa for a variety of political and economic reasons. Nonetheless, USAID PHN programs were continued in certain West African countries through a regionalization approach known as Family Health and AIDS (FHA). Our mandate was to compare this new adaptation and approach with the prevailing bilateral mission-based approach from the perspective of cost effectiveness. The fact that the initiation of this strategy coincided with a long trend toward privatization of services and cost-recovery makes this an especially fruitful period to study. In particular we were asked to establish a methodology and assemble data that could be used in future analyses. The methodologies we have devised are described above, while details of the base-line data are found in the Annex.

The "regionalization" in this study involved USAID population and family planning assistance in Ivory Coast, Burkina Faso, Cameroon, and Togo administered with a unitary management system in Abidjan. The new strategy featured a "forced collaboration" model where four American agencies contracted by USAID became jointly responsible for achieving specified outcomes under the direction of a "Unified Management Team." The new strategy relied much more heavily on implementation through African organizations and managers. Furthermore, the number of personnel administering the program was considerably leaner than corresponding mission-based programs or than had been true of USAID staffing in the FHA countries before the transition. A high priority in the new strategy was "mobilization of other partners" wherein strong efforts were made to attract support of USAID objectives from other donors even as the presence of USAID in these countries was being reduced. We chose to compare the four regionalized countries with four neighboring countries where mission based programs have remained intact: Ghana, Guinea, Mali, and Senegal.

We chose to focus on family planning outcomes since this has been the clear focus of FHA authorization since its inception in 1995, though USAID PHN programs, including FHA, also include major objectives in child survival, HIV/AIDS, and other health programs. Prevalence of use of contraception also is more clearly defined and measured over a longer period of time than indicators of other sub-sectors. Because of USAID's comparatively greater commitments in the field of family planning within the donor communities of the countries studied, we were better able to isolate the relationship of outcomes to USAID inputs. Detailed data bases and the availability of accurate survey information through the DHS and WFS surveys permitted us to examine statistical relationships with less "noise" from other donor activities than is true of other PHN sub-sectors. The study team reviewed literature, acquired and studied data bases, and consulted with USAID and contractor technical staff about indicators and methods for analyzing program performance in child survival and HIV/AIDS (e.g., ORS distribution, incidence of diarrhea) and reluctantly concluded that possibilities for clear analytical results were much more limited than with family planning. Thus, the team decided to focus on family planning.

Regression analysis showed that our estimates of prevalence of use of modern methods of contraception using DHS and WFS measurements well fitted a logistic acceptance curve and, adjusted for the Gender Development Index (GDI) were positively correlated to (1) year, (2) total USAID family planning dollars per woman 15-44 years of age, (3) proportion of total

family planning dollars per woman 15-44 years from all sources provided by USAID (“% USAID contribution”), and (4) the regionalization strategy itself (FHA).

The strong predictive relationship with year supports the general conclusion that family planning programs in West Africa have made rapid progress in recent years, even though levels remain low compared to other parts of the world. The strength of the relationship is also likely due in part to the mathematical model that best represents acceptance curves for family planning; an upward trend with time is inherent in the logistic model. Year (passage of time) likely is a proxy for other variables that may have had a positive influence on the acceptance of family planning, including interpersonal communication networks and diffusion of information and behavior change. The educational, economic and health status of women has slowly advanced over the decade in these countries, mediating the strong positive correlation with year.

Our analysis shows an extraordinarily strong relationship between prevalence of use of contraception and the share of economic, educational, and health progress enjoyed by women as these factors are represented within the combined UNDP “Gender Development Index” (GDI). Important policy changes favoring family planning have transpired in some of these countries, some even moving from pro-natalist policies (Togo) to the adoption of national family planning policies. Social marketing of family planning has increased substantially in this region over the decade and likely is having a major impact on utilization. Privatization, including commercial retail sales related to social marketing, has spread over most of West Africa meaning, *inter alia*, more family planning methods available in the private sector to supply the demand created by marketing. Other important variables over the decade include civil conflict, economic changes, and devaluation of the West African CFA franc in 1994.

The strong relationship with total USAID family planning dollars per woman aged 15-44 years is both reassuring and intuitive. More than any other donor in this region USAID has made a major effort to impact population growth and reproductive health through demand and services for modern methods of family planning. Large dollar amounts of aid have been expended for policy development, institutionalization, implementation, logistics and evaluation. Increases in CPR and declines in high fertility rates were confidently expected though the trajectory of change—the long period of low levels of diffusion and recent rapid acceleration in most of the eight countries studied—was not well forecast within USAID strategy and program documents, mainly because very short time periods were used for analysis and planning, often only three to five years. It will be clear to policy makers that increasing dollar inputs has a direct relationship to the utilization of modern methods. We did not attempt in this study to discern how variation in expenditures for specific types of activities within the domain of family planning were associated with CPR and comparatively more or less cost effectiveness. These questions are beyond the present work but are addressable with DHS data on knowledge, attitudes and practices (with appropriate lags) in each country and cost data series from USAID (and possibly UNFPA) country program records that disaggregate population/family planning funding into several interesting sub-categories.

CPR was also positively influenced by the share of total family planning dollars per woman 15-44 years from all sources provided by USAID. This variable (“% USAID contribution”) means that to the extent that USAID is the dominant donor in family planning the improvement in

utilization of modern methods is greater. By creating this variable we have been able to control to good extent for trends in other donor funding of family planning programs. USAID's predominant role in family planning perhaps fostered focused management and consistent messages, and this possibly has been more effective in increasing CPR than situations of multiple, potentially competing messages and management. Marketing and logistics perhaps are managed more effectively when there is one predominant donor. The two charts in Annex D on ODA funding from all sources show clearly that USAID no longer is the overwhelming presence for funding but remains the largest funder.

Overall expenditures for family planning for these eight countries rose 160%, fairly steadily from \$20 to \$52 million (per year) over the 10-year period. USAID's Global Bureau was the largest presence until 1993 after which large expenditures from earlier AFR Bureau obligations predominated from 1993 – 1996. After 1996, AFR Bureau expenditures held fairly constant, USAID's Global Bureau expenditures fell markedly, and expenditures from non-U.S. donors rose steeply. The index we used for AFR operating expenses attributable to family planning management shows a fairly constant amount over the period (around \$1.5 million/year) which was about 12% of total USAID expenditures in 1989-1990 but only 5% by the end of the period. We believe this index of USAID OE expenditures for population and family planning staff is a good one and serves as intended but, as it turns out, this measure does not add much as it does not correlate with CPR or study-comparison group CPR levels or changes among the countries.

Trends of all donors active in family planning over the last twenty years show that USAID accounted for about 80% of donor expenditures for family planning in the four FHA countries over the period 1988-1992, which share declined to about 40% by 1998. By contrast, in the comparison countries, USAID expenditures remained at least 70% of the total.

The regionalization (FHA) strategy itself had a consistently positive correlation with estimated CPR though this relationship was somewhat more likely to be explained by chance ($P=.10$) than the above correlations. While the present data series do not permit discovery of which parts of the new strategy likely were most effective, the leaner central administrative staff combined with more national and local autonomy possibly were important contributors. The “forced collaboration” aspect of the FHA approach probably also was influential as some interviewees speculated that there may be less non-productive competition among U.S. contracting agencies than in the dominant mission model. There clearly is better cross-border coordination of planning, sharing of resources and economies of scale and communication through the “Unified Management Team.” The greater use of African organizations and technical leadership likely has stimulated loyalties and performance and may be more “culturally adapted.”

For readers not familiar with the FHA model, the following aspects are noted: (1) FHA has put strong central emphasis on service delivery; (2) the program includes interventions for several main aspects of reproductive health; (3) a strong “results orientation” is exercised as contractors are retained based on performance [and one was not renewed]; (4) technical assistance draws on a pool of known experts for the sub-region whose skills may be shared or deployed as needed; (5) the Team often can quickly shift resources as needed; (6) good training and operational research are included throughout the program; (7) field support from numerous U.S.-based technical support agencies is often and flexibly deployed cross-borders; (8) there seems to have

been consistent emphasis on program follow-ups; (9) as a regional organization, FHA is not beholden to one single national government; (10) as a regional program, FHA may be at greater liberty to take a long-term vision of its mandate; (11) there may be greater opportunity to diversify financing in the regional model; and (12) coordination between countries may be more effective (e.g., FHA has supported training in Senegal and elsewhere outside its defined country framework, which is claimed to benefit many countries in the sub-region).

The concentration and coordination of expertise found in FHA suggests its utility as a technical implementing agency for other aid agencies such as the World Bank, at least in the four countries where it presently is based and probably more broadly. For example, USAID technical experts could be used in certification of program conditionalities and to assist in “unblocking” funding. Regional programs should be better able to address “cross border issues” such as migrants and traders. Finally, FHA may be especially effective at “leveraging support” from non-USAID sources. For example, PSI estimated that the value of resources used to support its social marketing programs is roughly \$11 million a year in these eight countries; PSI also contributed half of a full-time equivalent position over and above its contract to facilitate joint goals with FHA.

On the other hand there are critiques and inherent disadvantages of a regional model. For example, national family planning programs expressed some concern about having reduced input into planning and control of FHA program resources since its annual budgets are not strictly reserved for specific countries but may be shifted as needed. Several national program officers (in Togo and Côte d’Ivoire) expressed regret that they did not have sufficient input into planning and implementation. They were concerned that maybe too much emphasis had been placed on “cranking out” CYPs (couple-year protection) and that more emphasis should have been placed on long-term behavior and attitude changes. A particular point of concern was that more effort had not been made to increase the number of distribution points. While increasing the number of distribution points is an explicit goal of UNFPA, there has not yet been good coordination of planning and execution in this regard. Some experts suggested that national coordinating committees involving all actors in population activities as has been organized by WHO in Togo would lead to greater effectiveness.

At some juncture we should expect national leadership of this process to appropriately supplant expatriate planning and that all active donors in a country would coordinate their planning with a “carte sanitaire” (health “map”) developed by the government and local private leadership. The goal of “integrated development” may not be as achievable in a regional model as contrasted with the success of the FHA program, which is directed only toward PHN programs. Strategic Objectives in the mission-based programs often include measures aimed at improving the economic and educational status of women that is clearly related to utilization of modern methods. FHA may have less success in gaining attention and cooperation from national governments as contrasted to a standing mission, whose personnel may be better known to government officials. Finally, the services component of FHA has at times had to pay taxes on materials that it imports, a cost rarely incurred by mission-based programs.

Our analysis in Figure 4 showed that the cost per woman protected year was substantially lower after implementation of the regionalization strategy by a factor of nearly three to one. This is a

strong indication of the favorable cost effectiveness of the new strategy. When we estimated the additional expenditures that USAID would have had to make in order to achieve equivalent estimated levels of prevalence of use of contraception, we found that the savings were approximately \$15 million per year for the years 1996, 1997 and 1998. Seen in perspective, the yearly budget for FHA is on the order of \$15 million, which is only somewhat greater than the PHN budget of the Senegal USAID mission alone. Even as the FHA approach clearly appears to be more cost effective, essentially the same levels of utilization of modern methods were estimated to have occurred in both the countries participating in the new strategy and the comparison group of bilateral mission-based countries, demonstrating that overall family planning achievement was very nearly equal in both groups. The FHA model is shown to be effective and very cost-effective compared to concurrent bilateral mission programs and prior mission status in the four FHA countries.

A further analysis sought to examine trends in USAID-supplied family planning methods measured in “couple years of protection” (CYP). The results show an erratic, but positive trend over the years 1990-1995 in the distribution of CYP to both the study group and the comparison group of four countries with missions. After the transition to regionalization in 1996, USAID CYP in the FHA countries dropped sharply while continuing to rise in the comparison countries. A sub-analysis in Ivory Coast and Senegal confirmed these trends even as the estimated level of CPR increased in both. The German aid organization, KfW, has played an increasing role in Côte d’Ivoire since 1996 and supplied the condoms necessary to meet demand created by U.S. social marketing; declining USAID-supplied commodities were replaced by supply from other donors, evidently an example of “donor mobilization” within the regionalization strategy.

Areas for further analyses include family planning regionalization strategies in other parts of the world, more refined analyses of patterns of expenditures for specific domains of family planning (e.g., communication, services, policy, evaluation), extending similar analyses to other public health sub-sectors (e.g. HIV/AIDS) and to other domains of development. This might permit identification or better codification of the most salient success (or failure) factors in regionalization programs. Within the field of family planning it would be of interest to determine which sub-areas of investment have most likely paid off at certain stages of development. UNFPA and JSI/Global Bureau data on funding of family planning sub-objectives and measurement of Family Planning Effort (The Futures Group, Inc.) might suggest more efficient approaches to long-term funding of family planning and reproductive health. Finally, urban rather than national estimates of prevalence of use could be analytically productive since there is much higher prevalence and more variance among urban populations. It is widely accepted that most donor funding has earlier, more rapid impact on urban than rural people. This is exactly what all diffusion of innovation studies show. FHA-SFPS took the strategy from its inception of explicitly concentrating on urban areas. Investment or expenditure data on share of funding to urban areas, however, has not been collected over time in any of these countries.

Our analysis strongly supports the view that this regionalization strategy has been a success from the perspective of cost effectiveness and overall impact. While the results pertain specifically to the domain of family planning and to the geographic area of West Africa during the 1990’s, FHA offers generalizable features for consideration by the larger donor community and for other domains of development assistance. It appears that a relatively small regional administrative

staff can effectively manage complex social programs when combined with greater national and local autonomy. African organizations have been effective and reliable as implementing agencies. It may be that bilateral donors need not depend so heavily on expensive donor in-country aid organizations and may achieve equivalent or better results when working more exclusively through qualified national organizations, at least in this sub-sector in recent years. To the extent that donor country aid organizations work cooperatively with common planning and implementation mechanisms under unified local management, cost effectiveness and probably effectiveness could be enhanced. Possibly, large bilateral, mission-based programs have been most useful in early stages of program development, but after a long “seeding” period, regional programs may be more effective and more cost-effective. This study supports wider application of these principles and could encourage USAID to work less within national, country programming contexts and more within larger sub-regional frameworks.

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ANNEX A: KEY FAMILY PLANNING DATA IN STUDY COUNTRIES

Table A1: Overseas Development Assistance for Population and Family Planning (3 pages)
Estimated Expenditures and Prevalence of Use of Modern Methods in Eight West African Countries, 1989 -1998

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Year	Country	USAID/G (Central) Programs	USAID/AFR (Mission/Reg) Programs	AFR Operating Expense FP Attributions	Total USAID FP	Non- USAID OECD FP	Total ODA for FP	USAID % of Total FP ODA	Mission FHA Status	# Women 15-44 (000)	Fitted, Adjusted CPR	Fitted, Adjusted Logistic CPR	Women- Protected Years
1989	Burkina Faso	854	350	134	1338	233	1571	0.85	1	1764	3.67	-3.10	64,722
1989	Cameroon	607	1597	114	2318	353	2671	0.87	1	2275	1.82	-3.82	41,475
1989	Côte d'Ivoire	1830	97	164	2091	641	2732	0.77	1	2173	3.25	-3.22	70,649
1989	Togo	635	32	62	730	264	993	0.73	1	3075	2.59	-3.46	79,627
1989	Ghana	1674	782	507	2963	1351	4314	0.69	0	1138	1.12	-4.31	12,781
1989	Guinea	301	48	266	616	165	781	0.79	0	1772	2.19	-3.63	38,830
1989	Mali	842	498	142	1482	460	1942	0.76	0	1471	3.35	-3.19	49,355
1989	Senegal	941	467	433	1841	201	2042	0.90	0	704	2.76	-3.39	19,463
1990	Burkina Faso	956	118	157	1230	209	1439	0.85	1	1816	4.18	-2.96	75,930
1990	Cameroon	1213	157	76	1446	253	1699	0.85	1	2343	2.08	-3.69	48,744
1990	Côte d'Ivoire	1903	161	167	2231	607	2838	0.79	1	2250	3.66	-3.10	82,238
1990	Togo	1298	51	90	1438	138	1577	0.91	1	3174	3.07	-3.29	97,334
1990	Ghana	1233	199	402	1833	1602	3435	0.53	0	1170	1.27	-4.19	14,910
1990	Guinea	366	82	255	703	145	849	0.83	0	1801	2.55	-3.48	45,865
1990	Mali	1061	105	170	1336	200	1535	0.87	0	1516	3.84	-3.05	58,229
1990	Senegal	914	100	431	1446	184	1630	0.89	0	724	3.12	-3.27	22,567
1991	Burkina Faso	1072	440	156	1668	327	1995	0.84	1	1870	4.76	-2.82	89,052
1991	Cameroon	2611	1580	134	4326	443	4768	0.91	1	2420	2.37	-3.55	57,419
1991	Côte d'Ivoire	2073	1497	151	3722	860	4581	0.81	1	2348	4.11	-2.98	96,393
1991	Togo	1480	190	46	1716	194	1910	0.90	1	3277	3.63	-3.11	118,875
1991	Ghana	931	5451	551	6933	1301	8234	0.84	0	1228	1.45	-4.06	17,747
1991	Guinea	261	608	261	1130	228	1358	0.83	0	1841	2.96	-3.32	54,431
1991	Mali	1045	682	126	1852	293	2145	0.86	0	1562	4.39	-2.91	68,650
1991	Senegal	1320	1112	429	2861	279	3139	0.91	0	745	3.51	-3.14	26,169
1992	Burkina Faso	1407	414	89	1910	236	2146	0.89	1	1926	5.42	-2.69	104,337
1992	Cameroon	2054	1246	133	3432	323	3755	0.91	1	2499	2.70	-3.42	67,606
1992	Côte d'Ivoire	2219	1483	173	3876	325	4201	0.92	1	2450	4.61	-2.86	112,908
1992	Togo	1932	328	51	2311	175	2486	0.93	1	3382	4.29	-2.94	145,002
1992	Ghana	1206	5857	567	7630	399	8029	0.95	0	1288	1.64	-3.93	21,119
1992	Guinea	57	599	283	938	164	1102	0.85	0	1881	3.43	-3.17	64,547
1992	Mali	1288	596	131	2015	212	2227	0.90	0	1610	5.02	-2.77	80,856

Table A1: Overseas Development Assistance for Population and Family Planning (3 pages)
Estimated Expenditures and Prevalence of Use of Modern Methods in Eight West African Countries, 1989 -1998

1992	Senegal	1974	1096	439	3509	202	3711	0.95	0	767	3.96	-3.02	30,329
1993	Burkina Faso	1869	761	258	2889	401	3290	0.88	1	1984	6.16	-2.55	122,109
1993	Cameroon	1653	1133	171	2956	252	3207	0.92	1	2582	3.08	-3.28	79,554
1993	Côte d'Ivoire	1934	1631	172	3738	255	3992	0.94	1	2556	5.17	-2.74	132,152
1993	Togo	1710	600	45	2355	170	2526	0.93	1	3492	5.06	-2.76	176,611
1993	Ghana	2837	5131	280	8249	314	8562	0.96	0	1352	1.86	-3.80	25,124
1993	Guinea	358	747	339	1445	129	1574	0.92	0	1923	3.98	-3.01	76,471
1993	Mali	1979	1784	204	3967	164	4131	0.96	0	1659	5.74	-2.63	95,126
1993	Senegal	0	2008	322	2330	384	2714	0.86	0	789	4.45	-2.90	35,125
1994	Burkina Faso	1612	698	284	2593	1539	4132	0.63	1	2043	6.99	-2.41	142,728
1994	Cameroon	1212	1334	416	2961	213	3174	0.93	1	2666	3.51	-3.15	93,555
1994	Côte d'Ivoire	1289	2655	72	4016	212	4229	0.95	1	2667	5.79	-2.62	154,544
1994	Togo	1760	800	75	2635	72	2707	0.97	1	3605	5.96	-2.59	214,741
1994	Ghana	3115	6912	457	10484	266	10750	0.98	0	1419	2.11	-3.67	29,878
1994	Guinea	331	2030	186	2547	1830	4377	0.58	0	1966	4.60	-2.86	90,502
1994	Mali	1345	1561	203	3109	138	3247	0.96	0	1709	6.54	-2.48	111,774
1994	Senegal	2243	3375	224	5841	555	6396	0.91	0	812	5.01	-2.77	40,649
1995	Burkina Faso	2534	748	76	3358	2574	5932	0.57	1	2104	7.92	-2.28	166,590
1995	Cameroon	289	1072	89	1450	2339	3790	0.38	1	2754	3.99	-3.01	109,940
1995	Côte d'Ivoire	1739	2256	91	4086	1263	5348	0.76	1	2783	6.49	-2.49	180,560
1995	Togo	1740	1615	27	3382	19	3401	0.99	1	3721	7.00	-2.41	260,582
1995	Ghana	4593	6307	522	11423	50	11472	1.00	0	1489	2.39	-3.54	35,516
1995	Guinea	425	2695	202	3322	3589	6911	0.48	0	2009	5.32	-2.71	106,976
1995	Mali	1424	1605	416	3444	287	3731	0.92	0	1761	7.45	-2.34	131,148
1995	Senegal	1925	3636	379	5941	625	6565	0.90	0	835	5.63	-2.65	47,001
1996	Burkina Faso	1151	671	72	1894	3712	5606	0.34	2	2172	8.96	-2.14	194,615
1996	Cameroon	1459	849	94	2403	4169	6572	0.37	2	2842	4.54	-2.88	128,961
1996	Côte d'Ivoire	1706	1015	96	2816	2234	5051	0.56	2	2861	7.26	-2.37	207,628
1996	Togo	1699	1374	13	3086	195	3281	0.94	2	3846	8.21	-2.24	315,863
1996	Ghana	4418	7832	451	12701	400	13101	0.97	0	1509	2.70	-3.42	40,745
1996	Guinea	187	2308	316	2810	5674	8484	0.33	0	2065	6.15	-2.55	126,996
1996	Mali	1010	3881	498	5389	1009	6398	0.84	0	1812	8.47	-2.20	153,429
1996	Senegal	1289	3250	487	5026	851	5877	0.86	0	860	6.32	-2.52	54,327
1997	Burkina Faso	606	430	34	1070	3988	5057	0.21	2	2243	10.12	-2.00	226,950
1997	Cameroon	100	1031	99	1230	5837	7067	0.17	2	2932	5.15	-2.74	151,133
1997	Côte d'Ivoire	155	796	100	1050	3117	4167	0.25	2	2941	8.11	-2.25	238,478
1997	Togo	1390	1147	30	2568	485	3053	0.84	2	3975	9.61	-2.06	381,847

Table A1: Overseas Development Assistance for Population and Family Planning (3 pages)
Estimated Expenditures and Prevalence of Use of Modern Methods in Eight West African Countries, 1989 -1998

1997	Ghana	4418	5134	512	10065	755	10820	0.93	0	1529	3.06	-3.29	46,721
1997	Guinea	70	1688	225	1983	7627	9610	0.21	0	2123	7.09	-2.40	150,521
1997	Mali	282	4270	346	4898	1972	6870	0.71	0	1865	9.61	-2.06	179,174
1997	Senegal	808	2646	692	4146	246	4392	0.94	0	885	7.09	-2.40	62,728
1998	Burkina Faso	1124	828	80	2033	1448	3480	0.58	2	2315	11.41	-1.86	264,135
1998	Cameroon	444	1655	178	2277	7479	9755	0.23	2	3025	5.85	-2.61	176,934
1998	Côte d'Ivoire	94	1640	178	1911	3998	5909	0.32	2	3024	9.05	-2.13	273,561
1998	Togo	1293	584	55	1932	711	2642	0.73	2	4108	11.20	-1.89	460,199
1998	Ghana	1390	6646	338	8374	1057	9431	0.89	0	1549	3.46	-3.16	53,541
1998	Guinea	191	2524	435	3149	3960	7109	0.44	0	2182	8.16	-2.24	178,079
1998	Mali	355	4397	376	5128	2819	7947	0.65	0	1919	10.88	-1.92	208,818
1998	Senegal	944	4108	597	5649	401	6050	0.93	0	911	7.94	-2.27	72,343

Note: Column (10) shows coding for descriptive comparisons between FHA and non-FHA countries over the entire study period. Dummy variable coding for this variable for purposes of regression analyses (FHA vrs. Non-FHA program) was "0" for all eight countries through 1995 and "1" for each of the four FHA countries from 1996 through 1998.

Table A2: USAID/Africa Bureau Program Year Funding Estimates (OYB), Africa Bureau Personnel Assignments, and USAID Cost Estimates -- Eight West African Countries, 1990 – 1999 (4 pages)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Year	Country	USAID Type	UN Pop Est.	Total OYB (\$000's)	Family Planning (\$000's)	HIV/AIDS (\$000's)	Child Survival (\$000's)	Other Health (\$000's)	Total PHN (\$000's)	Total PHN % of Total OYB	No. of USDH	No. of USDH	Cost per USDH (\$000)	Cost per FSN (\$000)	OE Attribute to PHN (\$000's)	Total PHN Prog+OE
1990	Burkina Faso	Mission	9,024	2,908	1,057	255	494	370	2,176	0.75	2	5	178	20	456	2,632
1990	Cameroon	Mission	11,894	20,629	1,050	250	1,320	1,600	4,220	0.20	1	5	187	25	312	4,532
1990	Côte d'Ivoire	Mission	11,904	2,520	651	20	0	0	671	0.27	1	3	190	33	289	960
1990	Ghana	Mission	15,190	14,300	0	0	0	0	0	0.20	2	5	170	31	495	495
1990	Guinea	Mission	5,936	13,250	0	0	0	0	0	0.20	2	3	172	20	404	404
1990	Mali	Mission	8,231	16,610	1,526	0	1,513	1,351	4,390	0.26	3	4	170	21	594	4,984
1990	Senegal	Mission	7,408	36,000	0	0	383	0	383	0.20	3	7	180	29	743	1,126
1990	Togo	Mission	3,680	3,348	0	0	875	0	875	0.26	2	4	178	23	448	1,323
1991	Burkina Faso	Mission	9,280	2,700	675	350	350	1,125	2,500	0.93	2	4	185	21	454	2,954
1991	Cameroon	Mission	12,261	18,020	825	250	2,527	1,322	4,924	0.27	2	6	192	28	552	5,476
1991	Côte d'Ivoire	Mission	12,430	5,820	1,240	744	758	78	2,820	0.48	1	2	192	35	262	3,082
1991	Ghana	Mission	15,614	25,640	11,478	1,338	535	0	13,351	0.52	3	5	173	32	679	14,030
1991	Guinea	Mission	6,292	28,500	785	0	0	0	785	0.20	2	3	175	21	413	1,198
1991	Mali	Mission	8,417	31,560	2,749	0	5,404	2,357	10,510	0.33	2	4	174	23	440	10,950
1991	Senegal	Mission	7,667	22,645	1,270	50	286	858	2,464	0.20	3	6	186	30	738	3,202
1991	Togo	Mission	3,818	7,765	0	0	4,287	475	4,762	0.61	1	2	180	24	228	4,990
1992	Burkina Faso	Mission	9,544	2,700	405	210	210	705	1,530	0.57	1	3	189	23	258	1,788
1992	Cameroon	Mission	12,636	20,800	1,450	550	2,100	1,250	5,350	0.26	2	5	195	31	545	5,895
1992	Côte d'Ivoire	Mission	12,796	6,599	3,025	785	855	350	5,015	0.76	1	3	195	35	300	5,315
1992	Ghana	Mission	16,038	28,630	1,800	500	350	350	3,000	0.20	3	5	176	34	698	3,698
1992	Guinea	Mission	6,606	25,619	1,444	300	500	500	2,744	0.20	2	4	178	23	448	3,192
1992	Mali	Mission	8,574	30,220	500	0	800	530	1,830	0.20	2	4	179	25	458	2,288
1992	Senegal	Mission	7,935	31,150	5,000	650	2,000	300	7,950	0.26	3	6	192	30	756	8,706
1992	Togo	Mission	3,959	9,488	2,000	500	3,820	500	6,820	0.72	1	3	183	24	255	7,075

Table A2: USAID/Africa Bureau Program Year Funding Estimates (OYB), Africa Bureau Personnel Assignments, and USAID Cost Estimates -- Eight West African Countries, 1990 – 1999 (4 pages)

1993	Senegal	Mission	8,211	27,385	3,100	1,313	2,175	2,068	8,656	0.32	3	6	198	30	774	9,430
1993	Burkina Faso	Mission	9,813	2,700	1,000	13	463	618	2,094	0.78	1	3	193	24	265	2,359
1993	Cameroon	Mission	13,017	8,925	1,550	1,343	5,000	0	7,893	0.88	2	5	200	31	555	8,448
1993	Côte d'Ivoire	Mission	13,223	5,680	3,370	635	524	318	4,847	0.85	1	4	200	35	340	5,187
1993	Ghana	Mission	16,461	39,914	7,250	2,363	1,340	1,568	12,521	0.31	2	6	183	35	576	13,097
1993	Guinea	Mission	6,857	22,862	3,926	83	570	318	4,897	0.21	2	4	185	23	462	5,359
1993	Mali	Mission	8,732	30,555	1,330	463	1,485	318	3,596	0.20	2	5	187	25	499	4,095
1993	Togo	Mission	4,105	0	0	13	120	318	451	0.20	1	2	185	24	233	684
1994	Burkina Faso	Mission	10,091	2,497	647	180	207	764	1,798	0.72	2	3	250	25	575	2,373
1994	Cameroon	Regional	13,405	0	49	0	0	0	49	0.20	2	5	270	32	700	749
1994	Côte d'Ivoire	Regional	13,731	0	0	0	50	465	515	0.20	1	3	265	36	373	888
1994	Ghana	Mission	16,878	33,134	8,192	2,304	1,810	430	12,736	0.38	3	5	240	36	900	13,636
1994	Guinea	Mission	6,987	18,437	1,975	1,105	332	200	3,612	0.20	2	4	255	23	602	4,214
1994	Mali	Mission	8,930	34,204	2,636	3,141	6,676	155	12,608	0.37	2	3	260	25	595	13,203
1994	Senegal	Mission	8,497	30,925	2,560	3,350	2,624	592	9,126	0.30	3	6	210	31	816	9,942
1994	Togo	Mission	4,255	3,819	2,900	0	0	170	3,070	0.80	0	3	215	27	81	3,151
1995	Burkina Faso	Regional	10,375	0	281	589	467	172	1,509	n.a.	0	0	225	25	0	1,509
1995	Cameroon	Regional	13,780	0	912	782	1,120	229	3,043	n.a.	0	0	285	26	0	3,043
1995	Côte d'Ivoire	Regional	14,204	0	10	809	641	236	1,696	n.a.	0	0	279	36	0	1,696
1995	Ghana	Mission	17,291	28,680	5,950	1,000	1,000	0	7,950	0.28	3	5	245	37	920	8,870
1995	Guinea	Mission	7,165	16,423	850	200	600	200	1,850	0.20	2	4	272	24	640	2,490
1995	Mali	Mission	9,182	27,780	6,069	1,500	2,000	780	10,349	0.37	2	4	265	28	642	10,991
1995	Senegal	Mission	8,790	17,540	3,240	1,000	1,385	100	5,725	0.33	3	6	234	33	900	6,625
1995	Togo	Regional	4,410	0	535	257	204	75	1,071	n.a.	0	0	225	0	0	1,071
1995	FHA-WCA	Regional	0	13,525	6,700	3,250	2,575	950	13,475	1.00	0	3	270	70	210	13,685
1996	Burkina Faso	Regional	10,666	1,410	389	178	173	85	825	0.59	0	0	237	0	0	825
1996	Cameroon	Regional	14,202	381	1,636	218	173	63	2,090	5.49	0	0	235	0	0	2,090
1996	Côte d'Ivoire	Regional	14,653	473	1,979	821	179	65	3,044	6.44	0	0	281	0	0	3,044

Table A2: USAID/Africa Bureau Program Year Funding Estimates (OYB), Africa Bureau Personnel Assignments, and USAID Cost Estimates -- Eight West African Countries, 1990 – 1999 (4 pages)

1996	Ghana	Mission	17,698	33,200	1,766	166	600	0	2,532	0.20	3	5	250	38	940	3,472
1996	Guinea	Mission	7,317	12,023	2,135	16	647	0	2,798	0.23	2	5	270	44	760	3,558
1996	Mali	Mission	9,485	29,041	2,958	109	1,424	38	4,529	0.20	2	5	278	52	816	5,345
1996	Senegal	Mission	9,093	17,635	1,775	568	1,136	0	3,479	0.20	2	6	285	64	954	4,433
1996	Togo	Regional	4,571	228	520	274	57	21	872	3.82	0	0	237	0	0	872
1996	FHA-WCA	Regional	0	3,765	1,870	904	715	260	3,749	1.00	0	3	280	75	225	3,974
1997	Burkina Faso	Regional	10,963	0	1,233	598	361	363	2,555	n.a.	0	0	245	0	0	2,555
1997	Cameroon	Regional	14,611	0	1,636	794	479	481	3,390	n.a.	0	0	284	0	0	3,390
1997	Côte d'Ivoire	Regional	15,075	0	1,693	821	495	498	3,507	n.a.	0	0	302	0	0	3,507
1997	Ghana	Mission	18,101	24,600	9,500	1,900	1,000	500	12,900	0.52	3	6	255	40	1,005	13,905
1997	Guinea	Mission	7,405	5,300	3,000	1,200	1,500	500	6,200	1.17	2	5	295	50	840	7,040
1997	Mali	Mission	9,789	18,350	4,000	2,200	3,500	1,400	11,100	0.60	2	4	283	55	786	11,886
1997	Senegal	Mission	9,404	18,900	5,500	500	1,800	0	7,800	0.41	2	6	300	67	1,002	8,802
1997	Togo	Regional	4,736	0	538	261	157	158	1,114	n.a.	0	0	243	0	0	1,114
1997	FHA-WCA	Regional	0	14,595	6,800	3,300	1,395	2,000	13,495	0.92	0	3	300	75	225	13,720
1998	Burkina Faso	Regional	11,266	0	1,442	628	341	91	2,502	n.a.	0	0	248	0	0	2,502
1998	Cameroon	Regional	15,029	0	1,580	834	453	120	2,987	n.a.	0	0	287	0	0	2,987
1998	Côte d'Ivoire	Regional	15,446	0	1,979	862	468	124	3,433	n.a.	0	0	309	0	0	3,433
1998	Ghana	Mission	18,497	38,222	6,000	3,700	3,522	700	13,922	0.36	3	6	260	40	1,020	14,942
1998	Guinea	Mission	7,477	17,107	3,000	1,300	1,607	0	5,907	0.35	2	3	295	50	740	6,647
1998	Mali	Mission	10,109	38,659	4,000	2,400	3,759	1,300	11,459	0.30	2	4	295	55	810	12,269
1998	Senegal	Mission	9,723	17,146	3,000	100	1,846	0	4,946	0.29	2	5	310	70	970	5,916
1998	Togo	Regional	4,906	0	629	274	149	40	1,092	n.a.	0	0	260	30	0	1,092
1998	FHA-WCA	Regional	0	13,798	7,951	3,465	1,882	500	13,798	1.00	0	3	310	80	240	14,038
1999	FHA-WCA	Regional	0	14,577	6,567	3,605	3,705	700	14,577	1.00	1	3	310	80	550	15,127
1999	Ghana	Mission	18,997	39,871	6,175	4,000	4,303	700	15,178	0.38	2	6	265	45	800	15,978
1999	Guinea	Mission	7,686	17,161	2,375	1,200	2,450	0	6,025	0.35	3	6	300	50	1,200	7,225
1999	Mali	Mission	10,402	35,351	4,530	2,220	3,142	0	9,892	0.28	2	5	300	55	875	10,767

Table A2: USAID/Africa Bureau Program Year Funding Estimates (OYB), Africa Bureau Personnel Assignments, and USAID Cost Estimates -- Eight West African Countries, 1990 – 1999 (4 pages)																
1999	Senegal	Mission	9,985	23,224	5,903	2,774	3,207	0	11,884	0.51	2	3	275	60	730	12,614
1999	Burkina Faso	Regional	11,582	0	1,191	654	672	127	2,644	n.a.	0	0	275	50	0	2,644
1999	Cameroon	Regional	15,450	0	1,580	868	892	168	3,508	n.a.	0	0				3,508
1999	Côte d'Ivoire	Regional	15,848	0	1,635	897	922	174	3,628	n.a.	0	0				3,628
1999	Togo	Regional	5,048	0	520	285	293	55	1,153	n.a.	0	0				1,153

Table A3. Excerpt from OECD Creditor Reporting System, Listing of Donor Support to Health and Water Sectors

year	donorname	Agency	recipientname	purpose code	purposename	shortdescription	usd_amount (\$000's)
1983	FRANCE	F.A.C.	TOGO	12230	BASIC HEALTH INFRASTRUCTURE	HEALTH CENTRE, AMOU -OBLO	171
1983	FRANCE	AFD	TOGO	14010	WATER RESOURCES POLICY/ADMIN. MGMT	WATER SUPPLY LOME	4068
1983	GERMANY	KFW	CAMEROON	14010	WATER RESOURCES POLICY/ADMIN. MGMT	TOWN WATER SUPPLY SYST.	17298
1983	GERMANY	KFW	GHANA	14020	WATER SUPPLY & SANIT. - LARGE SYST.	REFUSE/NIGHTSOIL DISPOSAL	3522
1983	GERMANY	KFW	GHANA	14030	WATER SUPPLY & SANIT. - SMALL SYST.	DISTRICT WATER SUPPLY	3914
1983	GERMANY	KFW	GHANA	14030	WATER SUPPLY & SANIT. - SMALL SYST.	1000 HAND PUMPS	8219
1983	GERMANY	KFW	TOGO	14010	WATER RESOURCES POLICY/ADMIN. MGMT	WATER SUPPLY	1018
1983	GERMANY	KFW	TOGO	14010	WATER RESOURCES POLICY/ADMIN. MGMT	3 TOWNS WATER SUPPLY	5283
1983	IDA		GHANA	14020	WATER SUPPLY & SANIT. - LARGE SYST.	WATER & SEWERAGE CORPOR.	13000
1983	IDA		SENEGAL	12230	BASIC HEALTH INFRASTRUCTURE	RURAL HEALTH SERVICES	15000
1983	IDA		TOGO	14010	WATER RESOURCES POLICY/ADMIN. MGMT	LOME WATER SUPPLY	12000
1983	ITALY	D.G.C.S	SENEGAL	12110	HEALTH POLICY & ADMIN. MANAGEMENT	MEDICAL UNIT TRANSPORT EQMT.	198
1983	ITALY	D.G.C.S	SENEGAL	12220	BASIC HEALTH CARE	MEDICAL SUPPLIES	724
1983	ITALY	D.G.C.S	SENEGAL	12230	BASIC HEALTH INFRASTRUCTURE	MEDICAL CENTRES	1712
1983	JAPAN	J.G.	BURKINA FASO	14030	WATER SUPPLY & SANIT. - SMALL SYST.	RURAL WATER SUPPLY	2316
1983	JAPAN	J.G.	GHANA	12110	HEALTH POLICY & ADMIN. MANAGEMENT	HEALTH, HEALTH SERVICES	1053
1983	JAPAN	J.G.	MALI	14010	WATER RESOURCES POLICY/ADMIN. MGMT	GROUNDWATER EXPLOITATION	2526
1983	JAPAN	J.G.	SENEGAL	14030	WATER SUPPLY & SANIT. - SMALL SYST.	RURAL WATER SUPPLY	2737
1983	JAPAN	J.G.	TOGO	12191	MEDICAL SERVICES	MEDICAL EQUIPMENT	1053
1983	NETHERLANDS	M.F.A.	BURKINA FASO	14010	WATER RESOURCES POLICY/ADMIN. MGMT	WATER SUPPLY	1121
1983	NETHERLANDS	M.F.A.	BURKINA FASO	14030	WATER SUPPLY & SANIT. - SMALL SYST.	WELLS PROJECT	3118
1983	SWEDEN	SIDA	SOUTH OF SAHARA UNALL.	12240	BASIC NUTRITION	NUTRITION	117
1983	SWEDEN	SIDA	SOUTH OF SAHARA UNALL.	14030	WATER SUPPLY & SANIT. - SMALL SYST.	RURAL WATER SUPPLY	170
1983	SWITZERLAND	D.D.C.	GUINEA	14030	WATER SUPPLY & SANIT. - SMALL SYST.	SPRINGS DEVELOPMENT STUDY	38
1983	SWITZERLAND	D.D.C.	MALI	12110	HEALTH POLICY & ADMIN. MANAGEMENT	HEALTH PROJECT EVALUATION	29
1983	SWITZERLAND	D.D.C.	MALI	14030	WATER SUPPLY & SANIT. - SMALL SYST.	UNDERGROUND WATER IMPROVEMENT	2239
1983	SWITZERLAND	D.D.C.	SOUTH OF SAHARA UNALL.	12250	INFECTIOUS DISEASE CONTROL	ONCOCERCOSIS CONT ROL	1429
1983	UNITED STATES	AID	AFRICA UNSPECIFIED	12110	HEALTH POLICY & ADMIN. MANAGEMENT	HEALTH, HEALTH SERVICES	4483
1983	UNITED STATES	AID	AFRICA UNSPECIFIED	13030	FAMILY PLANNING	FAMILY HEALTH INITIATIVE	5164
1983	UNITED STATES	AID	SENEGAL	12230	BASIC HEALTH INFRASTRUCTURE	RURAL HEALTH SERVIC. DEV.	250
1983	UNITED STATES	AID	SOUTH OF SAHARA UNALL.	13030	FAMILY PLANNING	DEMOGRAPHIC DATA COLLECT.	3400
1983	UNITED STATES	AID	SOUTH OF SAHARA UNALL.	14010	WATER RESOURCES POLICY/ADMIN. MGMT	GROUNDWATER MONITORING	4651
1983	UNITED STATES	AID	TOGO	14030	WATER SUPPLY & SANIT. - SMALL SYST.	RURAL WATER & SANITATION	699
1984	AF. D F		MALI	14010	WATER RESOURCES POLICY/ADMIN. MGMT	WATER SUPPLY	10482
1984	AF. D F		SENEGAL	12282	HEALTH PERSONNEL DEVELOPMENT	TEACHING HOSPITAL STUDY	1219
1984	CANADA	IDRC	SENEGAL	12281	HEALTH EDUCATION	FAMILY HEALTH JOURNAL, FINANCING	39
1984	CANADA	CIDA	TOGO	14010	WATER RESOURCES POLICY/ADMIN. MGMT	WATER SUPPLY, SIO/YOTO REGIONS	5019

Table A4: Sample from JSI Database - 1996-1998
Global Bureau Country Expenditures for Population and Family Planning:
Activity, Intermediary, and USAID Funding Authorization Type

Year	Country	Activity Type	Expenditure Type	Funding Type	Expenditure (\$000)
1996	Togo	Contraceptive Research	Private For-Profit	Mission/Region Buy-Ins	54
1996	Togo	Contraceptive Research	Private For-Profit	Mission/Region Buy-Ins	1
1996	Togo	Contraceptive Research	Private For-Profit	Mission/Region Buy-Ins	26
1996	Togo	Contraceptive Research	Private For-Profit	Mission/Region Buy-Ins	54
1996	Togo	Contraceptive Research	Private Non-Profit	Central G/PHN (OYB)	53
1996	Togo	Contraceptive Research	Private Non-Profit	Central G/PHN (OYB)	55
1996	Togo	Contraceptive Research	Private Non-Profit	Field Support Funds	110
1996	Togo	Contraceptive Research	Private Non-Profit	Field Support Funds	50
1996	Togo	Contraceptive Research	Private Non-Profit	Field Support Funds	40
1996	Togo	Contraceptive Research	Private Non-Profit	Field Support Funds	47
1996	Togo	Contraceptive Research	Private Non-Profit	Field Support Funds	49
1996	Togo	Contraceptive Research	Private Non-Profit	Field Support Funds	31
1996	Togo	Contraceptive Research	Private Non-Profit	Field Support Funds	110
1996	Togo	Contraceptive Research	Private Non-Profit	Field Support Funds	50
1996	Senegal	Contraceptive Research	Private Non-Profit	Mission/Region Buy-Ins	-2
1996	Senegal	Contraceptive Research	University	Field Support Funds	110
1996	Senegal	Contraceptive Research	University	Field Support Funds	50
1996	Senegal	Contraceptive Research	University	G/PHN Core Funds	31
1996	Senegal	Contraceptive Research	University	G/PHN Core Funds	52
1996	Senegal	Contraceptive Research	University	G/PHN Core Funds	139
1996	Senegal	Contraceptive Research	University	Mission/Region Buy-Ins	-2
1996	Senegal	Info., Education, and Communication	Governmental	Central G/PHN (OYB)	367
1996	Senegal	Info., Education, and Communication	Governmental	Field Support Funds	336
1996	Senegal	Info., Education, and Communication	Governmental	Field Support Funds	321
1996	Senegal	Info., Education, and Communication	Governmental	Mission/Region Buy-Ins	9
1996	Senegal	Info., Education, and Communication	IPPF-Affiliate	Central G/PHN (OYB)	367
1996	Senegal	Info., Education, and Communication	IPPF-Affiliate	Field Support Funds	336
1996	Senegal	Info., Education, and Communication	IPPF-Affiliate	Field Support Funds	321
1996	Senegal	Info., Education, and Communication	IPPF-Affiliate	Mission/Region Buy-Ins	9
1996	Senegal	Info., Education, and Communication	Private For-Profit	Central G/PHN (OYB)	367
1996	Senegal	Info., Education, and Communication	Private For-Profit	Central G/PHN (OYB)	367
1996	Senegal	Info., Education, and Communication	Private For-Profit	Field Support Funds	336
1996	Senegal	Info., Education, and Communication	Private For-Profit	Field Support Funds	321
1996	Senegal	Info., Education, and Communication	Private For-Profit	Field Support Funds	336
1996	Senegal	Info., Education, and Communication	Private For-Profit	Field Support Funds	321
1998	Mali	Operations Research	University	Field Support Funds	219
1998	Mali	Operations Research	University	G/PHN Core Funds	334
1998	Mali	Operations Research	University	G/PHN Core Funds	161
1998	Mali	Operations Research	University	G/PHN Core Funds	21
1998	Mali	Operations Research	University	G/PHN Core Funds	82
1998	Mali	Operations Research	University	G/PHN Core Funds	391
1998	Mali	Operations Research	University	Mission/Region Buy-Ins	212
1998	Mali	Policy	Private For-Profit	Field Support Funds	308
1998	Mali	Policy	Private For-Profit	Field Support Funds	289

Table A5: USAID-Provided Couple-Years Protection by FHA Countries and Mission Countries

	Year	Condom CYP	Total CYP	Non-Condom CYP
FHA Countries				
	1990	119,620	243,905	124,285
	1991	119,570	219,166	99,596
	1992	149,051	377,957	228,905
	1993	168,374	272,163	103,789
	1994	242,227	421,923	179,695
	1995	307,117	543,645	236,529
	1996	210,156	270,227	60,071
	1997	238,691	576,388	337,697
	1998	204,778	414,291	209,513
	1999	90,586	247,729	157,143
		1,850,170	3,587,393	1,737,223
	Condom % of Total CYP	52%		
Missions				
	1990	195,814	380,536	184,723
	1991	55,527	549,461	493,934
	1992	66,035	379,841	313,806
	1993	209,459	520,800	311,341
	1994	217,277	678,442	461,165
	1995	224,698	829,109	604,411
	1996	207,268	845,112	637,845
	1997	167,129	508,397	341,268
	1998	234,608	711,980	477,372
	1999	142,378	1,035,241	892,863
		1,720,192	6,438,920	4,718,728
	Condom % of Total CYP	27%		

Source: John Snow, Inc.; USAID Contract; NEWVERN, Family Planning Logistics Management

ANNEX B. ACCURACY OF THE CREDITOR REPORTING SYSTEM (CRS)

Notes from Jean-Louis.GROLLEAU, OECD, (Jean-Louis.GROLLEAU@oecd.org)
Sent to Gary Merritt

April 25, 2000:

“...U.S. reporting at activities level [in the CRS] is under-reported... If we compare such reporting with aggregated official figures reported to the Development Assistance Countries (DAC, used for other official presentations and calculations as % of GNP etc.), we define some coverage indicators. Table (B1) below gives such coverage ratios for U.S. and DAC countries. ...Keep in mind that France and Germany figures as reported to the CRS for some sectors like health and education (Technical Cooperation partly missing) are also under -reported.

**Table B1. Coverage percentages of OECD data base of donor funding
By donor country and year**

CRS DAC Coverage	1990	1991	1992	1993	1994	1995	1996	1997	1998
DAC Countries, Total	64	85	80	72	67	77	78	79	84
Australia	80	100	46	96	89	24	100	93	74
Austria	38	100	15	32	24	30	100	98	37
Belgium	23	56	31	21	78	84	100	94	94
Canada	100	83	78	98	100	100	100	98	97
Denmark	100	89	100	90	100	100	100	100	100
Finland	93	92	92	100	99	100	100	98	85
France	46	57	50	49	37	48	52	46	65
Germany	75	58	71	50	56	61	68	70	64
Italy	81	80	98	71	81	88	84	100	100
Japan	87	100	86	88	83	85	86	85	87
Netherlands	62	89	84	95	100	100	98	100	100
New Zealand	-	-	-	-	-	0	-	-	-
Norway	100	89	100	100	100	100	100	98	100
Portugal	-	-	100	100	100	86	95	100	100
Spain	0	0	100	100	100	81	100	100	96
Sweden	100	100	100	100	100	100	100	100	99
Switzerland	84	86	100	86	100	98	84	97	100
United Kingdom	63	46	100	66	65	88	100	90	100
United States	35	80	71	59	49	75	53	68	73

Figure B1. Project Level (CRS) Reporting as % of Aggregated Official ODA Reporting of Development Assistance (All Sectors), 1990 - 1998

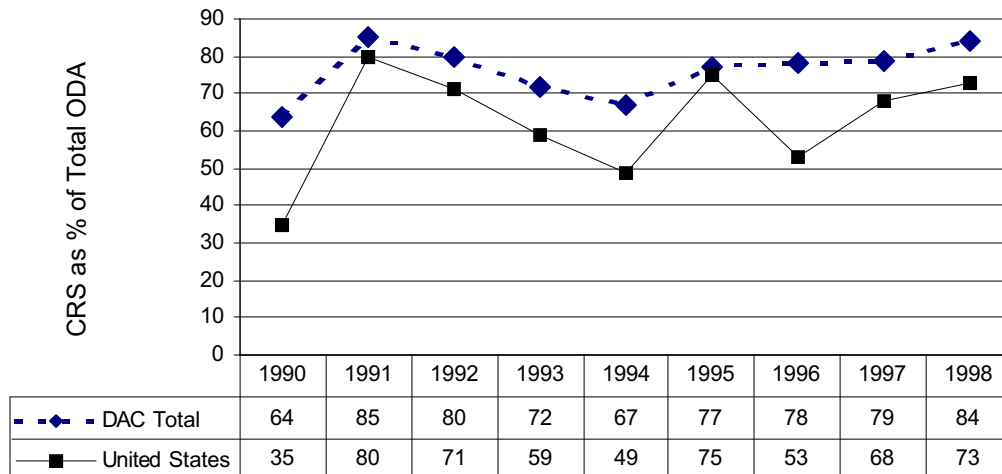


Figure B2. Total DAC and U.S. Project-Level Reporting Compared to Aggregate Official Figures, 1990 - 1998 Average (OECD), in percent

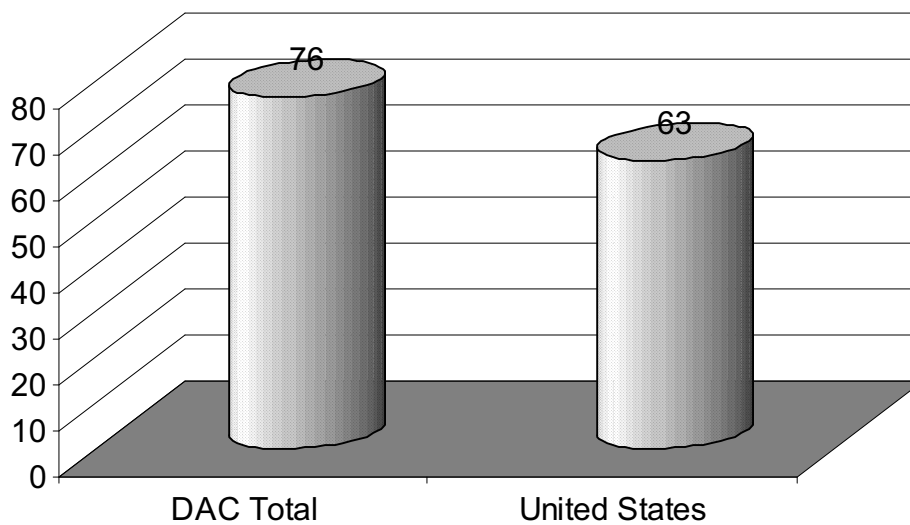


Figure B3. Undisbursed, DAC Countries: ODA Loans

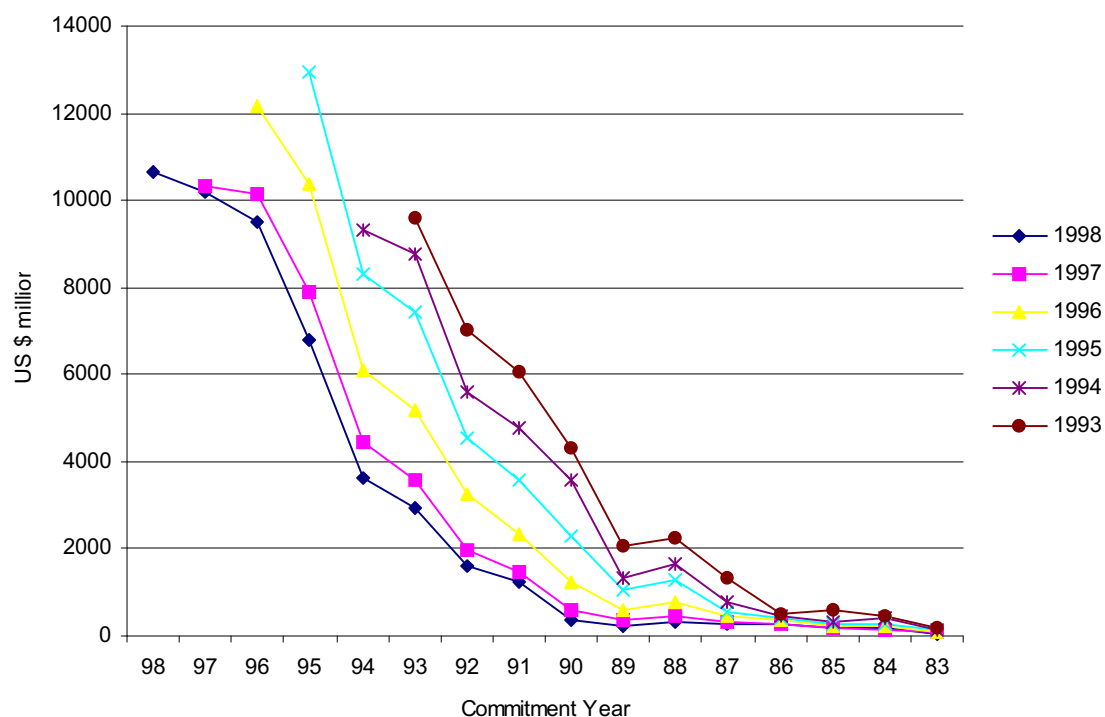
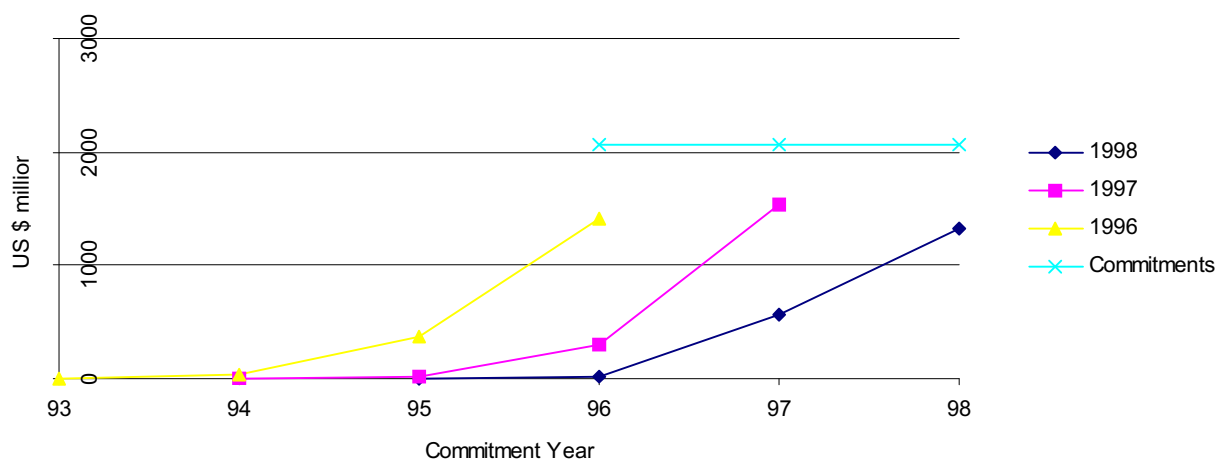


Figure B4. Undisbursed, Japan: ODA Grants



ANNEX C: DESCRIPTIVE INFORMATION ABOUT FHA / SFPS

Numerous FHA–SFPS documents are available at:

<http://payson.tulane.edu/payson/search.htm>

Family Health and AIDS Prevention (Santé Familial et Prévention du SIDA – SFPS)

22 BP 1356 Abidjan 22

Tel: (225) 22 47 10 18/22 Fax : (225) 22 471728

Email: seps@africaOnline.co.ci

The SFPS website provides a central location for all project members, as well as researchers from outside the project, to access information or to communicate their efforts concerning Family Health Planning and HIV/AIDS research in West and Central Africa. The site is continuously updated to remain abreast of project developments. The benefits of this project are:

- facilitating communication between the components of the project,
- providing a central location for dissemination of project results, research, documents, and general project-related information,
- and enhancing project awareness to researchers, potential sponsors, and the general public that are seeking information on efforts in Family Planning and HIV/AIDS research.

The SFPS website is developed and maintained through the Operations Research component at Tulane University. If you have questions or comments about SFPS, please [send us](#) an email.

Family Health and AIDS Prevention in West and Central Africa is funded by USAID's Regional Economic Development Services Office (REDSO/WCA)

Operations and Applied Research (OR) aims to improve the effectiveness and efficiency of reproductive health service delivery programs by:

- Identifying problems affecting the performance of service delivery programs
- Testing strategies for resolving problems
- Proposing solutions to be applied

Under the direction of Tulane University, the OR team plans to reinforce the technical capacity in research and Information Technology of its African partner institutions. In its role of supporting the SFPS project as a whole through the [M&E/MIS](#) unit, Tulane is also

responsible for monitoring and evaluating the project progress and performance indicators, developing and implementing effective regional and country Management Information Services and for the dissemination of project results through regular reporting.

ANNEX D: PIPELINE DELAY ESTIMATES FOR USAID AND OTHER DONOR FUNDING.

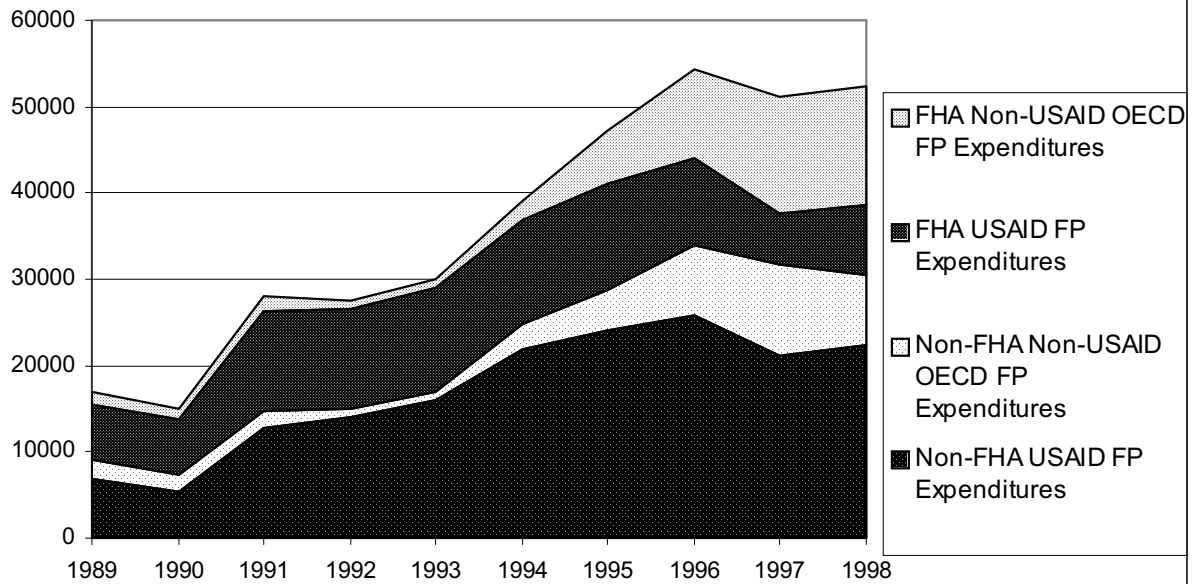
Table D1. Lag Model Simulation for USAID Fund Obligations to Expenditures (Pipeline Effect).

Obligation		<u>Share of Expenditure, 1986-1999</u>		
Year				
Budget (x)	In yr x	in yr x+1	in yr x+2	in yr x+3
1986	10%	18%	25%	32%
1987	10%	18%	25%	32%
1988	10%	18%	25%	32%
1989	10%	18%	25%	32%
1990	0%	25%	40%	35%
1991	0%	25%	40%	35%
1992	0%	30%	40%	30%
1993	0%	30%	40%	30%
1994	0%	35%	40%	25%
1995	0%	40%	40%	20%
1996	0%	40%	40%	20%
1997	0%	50%	40%	10%
1998	0%	50%	40%	10%
1999	0%	60%	40%	0%

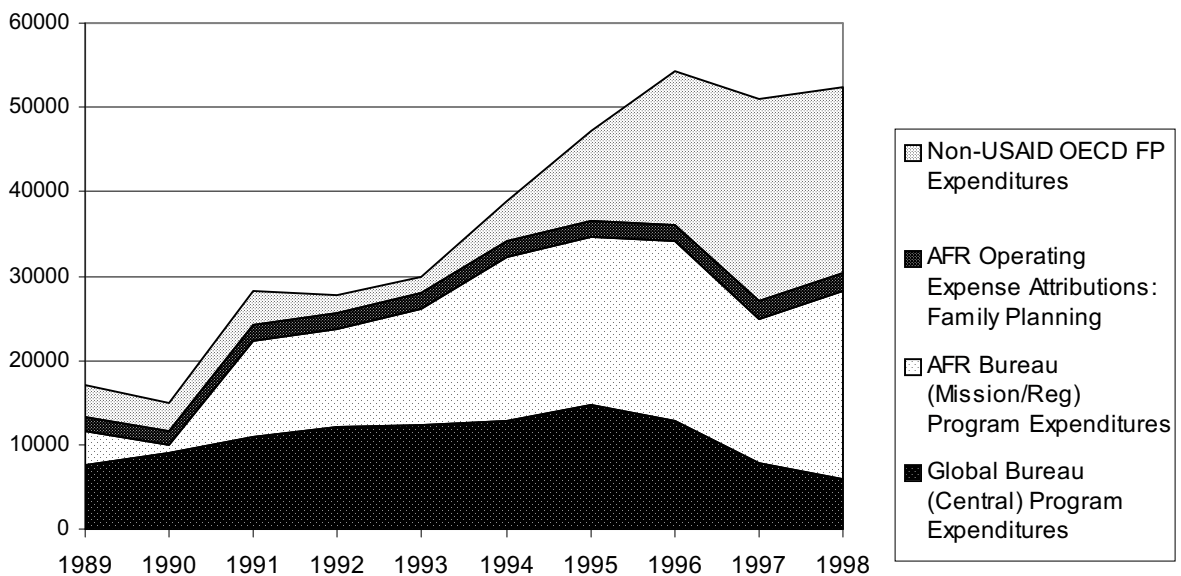
Table D2. Lag Model for Non-USAID Fund Obligations to Expenditures (Pipeline Effect)

Obligation		<u>Share of Expenditure, 1988-1999</u>		
Year				
Budget (x)	In yr x	in yr x+1	in yr x+2	in yr x+3
1986	0.10	0.18	0.25	0.32
1987	0.10	0.18	0.25	0.32
1988	0.10	0.18	0.25	0.32
1989	0.10	0.18	0.25	0.32
1990	0.10	0.18	0.25	0.32
1991	0.10	0.18	0.25	0.32
1992	0.10	0.18	0.25	0.32
1993	0.10	0.18	0.25	0.32
1994	0.10	0.18	0.25	0.32
1995	0.10	0.18	0.25	0.32
1996	0.10	0.18	0.25	0.32
1997	0.10	0.18	0.25	0.32
1998	0.10	0.18	0.25	0.32
1999	0.10	0.18	0.25	0.32

FHA and Non-FHA Countries' Total USAID and Other OECD - 1989-1998 (\$millions)



USAID and Other ODA for Pop/Family Planning Eight West African Countries, 1989-1998 (\$M)



ANNEX E: ALTERNATIVE SPECIFICATION OF REGRESSION

Table E1. Regression results with share of USAID*

Independent Variables	Coefficients	Standard Error	t Stat	P-value
Intercept	-328.085	44.235	-7.42	<0.0001
Year	0.163	0.022	7.33	<0.0001
FHA status	0.280	0.163	1.72	<0.10
Estimated total USAID and other donor FP exp per woman 15-44				
	-0.059	0.049	-1.20	N.S.
USAID FP as proportion of all donor FP \$	0.820	0.233	3.52	<.0001

*Adjusted R-squared is 0.579, F(4,75) is 28.2, p<.0001